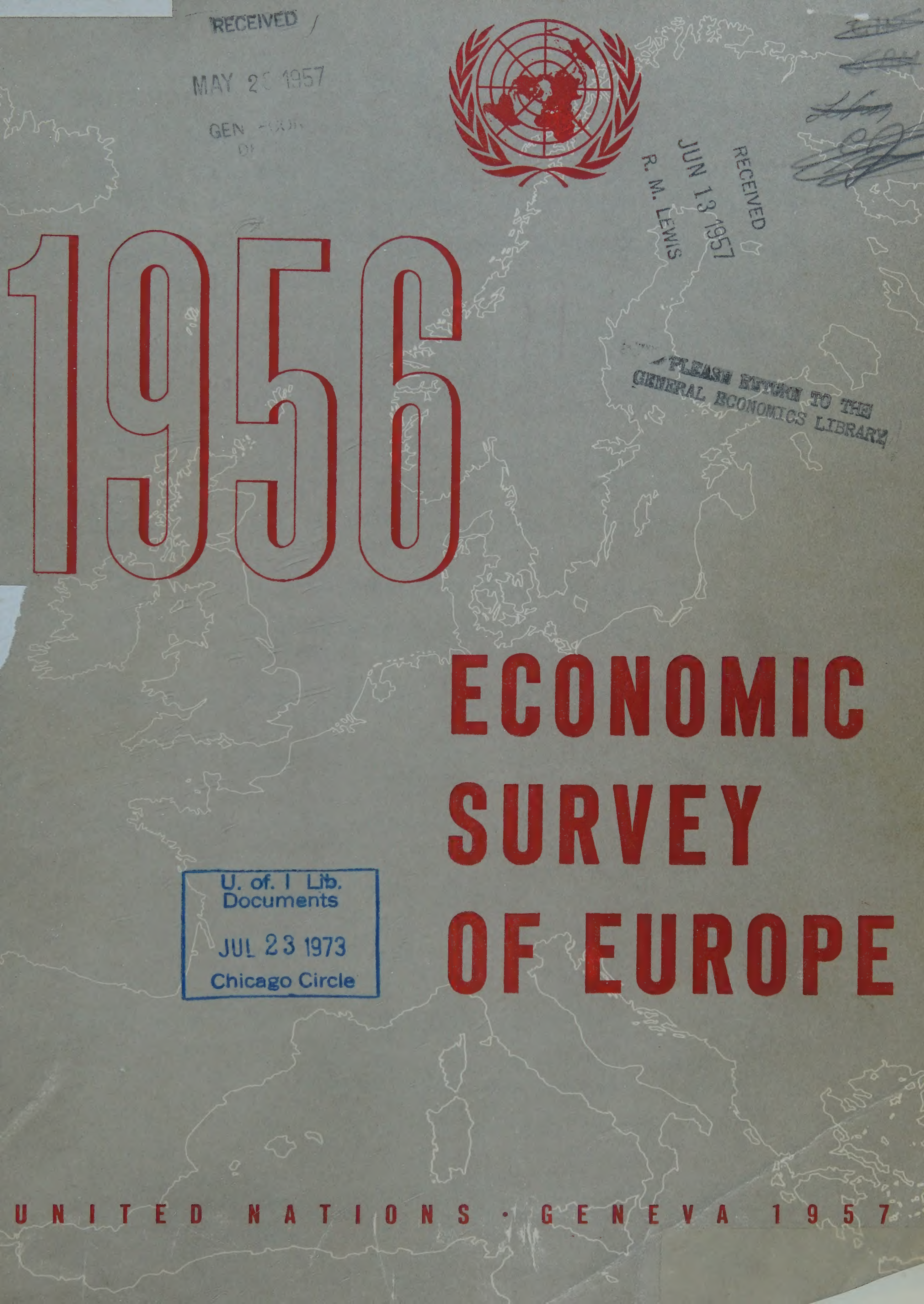

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Table of Contents: Page vii, under Index of Tables for Chapter II, read:
1. National income .... Soviet Union Page II-1 3.

Page xii, for Table XXIV, insert under Page (App.B): 8.

Chapter I: Page 9, Table 10, delete footnote a after 103 in the last colum

Page 14, Table 18, column 12, second line, instead of "11" read

Page 15, second column, penultimate line, instead of "November 1
read "November 1956".

Chapter II: Page 16, footnote 36, fifth line after table, delete "of 'light'
industries relative capital-intensity" and insert "relative capital-intensity of 'light' industries".

Chapter III: Page 23, footnote 30 should be deleted after "surplus" and inserted after "strain".

Page 31, second line after text table instead of "1955" read "19

Page 36, Chart 8, Key to chart of Prices of Metals and Fuels, fo
"Fuel and oil" read "Fuel oil".

Chapter VIII: Page 7, Table 4, last line of table, insert footnote k after "Rent[d] b".

Chapter IX: Page 8, table 4, under Western Germany, third column, instead of
0.4 and 0.5 read .04 and .05.

Appendix A: Table XI, Other overseas countries, 9th column instead of "100.0
read "10.0".

Table XX, in the footnote Sources, instead of "Table IX" read "Table X".

Table XXII, last line, delete footnote e, insert footnote e after "Poland, 1956 to 1960 Plan."

Appendix B: Page 4, (b) Total grain, Kazakhstan: in the second line replace
"of which millet .... hectares" by "of which some will have bee
due to transfer from other grains, although millet may have increased by anything up to 1.5 million hectares".

Page 10, Industrial Wage Bill, in second line for "Table 14" read "Table 16".

Page 30, at end of notes on The Business Sector, instead of "tot
product in the private sector" read "total product in the busin
sector".

UNITED NATIONS

DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS

ECONOMIC SURVEY OF EUROPE IN 1956

including Studies of

European Transport Problems

and

Income Distribution in Western Europe

Prepared by the

RESEARCH AND PLANNING DIVISION
ECONOMIC COMMISSION FOR EUROPE

GENEVA, 1957

E/ECE/278
March 1957

United Nations publication
Sales No. : 1957. II.E. 1.

Price: $(U.S.) 2.50; 18/- stg.; Swiss francs 10.50
(or equivalent in other currencies)

Prefatory note

The present SURVEY is the tenth in a series of reports prepared each year by the secretariat of the Economic Commission for Europe to serve the needs of the Commission and to help in the task of reporting on world economic conditions which the Economic and Social Council of the United Nations has entrusted to the Department of Economic and Social Affairs.

A major object of these SURVEYS, and of the quarterly *Economic Bulletins* which supplement them, is to analyse recent developments in the European economy and tendencies elsewhere which may significantly affect the economic framework within which the countries of Europe have to determine their policies. Part I of this SURVEY reviews, in Chapters I and III, economic developments during 1956 in the countries of eastern Europe and the Soviet Union and in the western European countries respectively. It also contains (in Chapter II) a review of the long-term plans of the eastern European countries and the Soviet Union, and (in Chapter IV) a discussion of the possible implications of the new proposals for a Common Market and a Free Trade Area in western Europe to the extent that these were known at the time of writing.

In accordance with past practice, the opportunity has also been taken to focus attention on one specific field in which long-term issues of economic policy exist which should be of continuing concern to all European governments. The discussion of European transport problems in Part II of this SURVEY not only describes the present situation in both eastern and western European countries, but also draws attention to a number of longer-term problems which are of immediate relevance to the current economic policies of the governments concerned.

It has likewise been the practice of the secretariat to attempt from time to time a study of some aspects of the economic structure of European countries. The results of one such study, undertaken last year, are contained in Part III of the SURVEY, which is devoted to an analysis of income distribution in western Europe. The analysis covers the distribution of income by economic sectors and by factor shares in a number of countries, and also a study of the size distribution of personal incomes in those few countries for which more or less adequate data were available.

The prefatory note to the *Economic Survey of Europe in 1955* mentioned the improvement that had been taking place in the supply of statistical data from eastern European countries and the Soviet Union. This improvement has continued during 1956. The Soviet Union and three eastern European countries have published statistical hand-books or abstracts giving systematic series for a number of past years, and regular publication of some current series has been started in two eastern European countries. The published data have been supplemented to some extent by statistical material supplied directly to the secretariat by the governments of the region, and discussions with officials and economists in these countries have also proved helpful. There are still, however, serious deficiencies in the coverage and frequency of publication of eastern European statistics, and these are particularly marked in the fields of national accounts and of statistics of international trade. If the improvements in the supply of data which have been achieved during the last two years are continued, it should be possible correspondingly to improve, both in coverage and in accuracy of detail, the analyses of economic developments in eastern Europe and the Soviet Union presented in the annual SURVEYS.

This SURVEY is published on the responsibility of the secretariat, and the views expressed in it should not be attributed to the Commission or to its member governments.

Geneva

March 1957

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SYMBOLS EMPLOYED

The following symbols have been used throughout this SURVEY :

.. = not available or not pertinent

— = nil or negligible

* = estimate by the secretariat of the Economic Commission for Europe

⧗ = interruption in the comparability of the series or a change in the unit in which the series is reported.

In referring to combinations of years, the use of an oblique stroke—e.g., 1955/56—signifies a 12-month period (say from 1 July 1955 to 30 June 1956). The use of a hyphen—e.g., 1953-1956—normally signifies an average of the full period of calendar years covered (including the end years indicated).

Unless the contrary is stated, the standard unit of weight used throughout is the metric ton. The definition of " billion " used throughout is one thousand millions. Minor discrepancies in totals and percentages are due to rounding.

In general, information received up to mid-February 1957 has been included in the SURVEY.

ERRATA

Chapter II

Page 6, Table 4, *Hungary:* Figures should read as follows:

All grains[b] . . .	14.4	15.7	15.4	1.0	6
Maize	22.1	22.6	24.9	2.8	13

Chapter VII

Page 18, Table 9: *Norway*, column 3, for " 124 " read " 120 "; column 9, for " 120 " read " 117 ". Footnote *b*, delete " the Netherlands ". Footnote *c*, after " Luxembourg ", add " the Netherlands ".

Page 24, Table 14: *Norway:* Post-war period, for " 1949 to 1955 ", read " 1950 to 1955 ". Footnote *d* should read as follows: " The annual rates of increase of total net real output per head were as follows for the period 1950 to 1954, except for Sweden and Finland, where the periods considered are 1949 to 1955 and 1950 to 1955 respectively:

Denmark : 1.5 *
Finland : 4.1 *
France : 2.9 *
Netherlands : 2.4 *
Sweden : 2.7 *

PART I

RECENT ECONOMIC DEVELOPMENTS

Chapter I

CURRENT DEVELOPMENTS AND PROBLEMS IN EASTERN EUROPE AND THE SOVIET UNION

---

1. Production in the Soviet Union

With the weather as only a half-hearted ally, the Soviet Government's policy—begun on at least a modest scale in 1953 and continuing through 1956—of increasing inputs and incentives in agriculture, has borne much-needed fruit, and in 1956 the rate of growth in agriculture significantly exceeded that of industry. The same will be the case in 1957 if actual developments conform to the plan. The rate of expansion of industrial production was in fact a little slower in 1956 than in the preceding year, but even if this had not been so, the progress of the farming sector would have been the predominant feature of the year.

Food Production

Agricultural output in the Soviet Union has never been as high as it was in 1956: in comparison with 1952, the last year in which weather conditions were consistently favourable throughout the country, the crop of grain (on a barn-yield basis) was 37 per cent higher. As Table 1 shows, the year was also a record one for all the crops upon which information is available.

Of a total grain crop estimated at 130 million tons,[1] or 20 per cent more than in 1955, deliveries to the State [2] amounted to 54 million tons, or two-thirds more than in 1955. The great expansion of deliveries—with the attendant advantages to the State of cheapness, control and availability for stock-piling [3]—was to a large extent a direct result of the policy of establishing state farms for the cultivation of virgin lands in Siberia and Kazakhstan. Of the countrywide increment of 22 million hectares to the grain area since the virgin lands campaign was launched in 1954, two-thirds were accounted for by state farms. In the zones where the new state farms are located, the 1956 yields were as good as those in 1955 had been poor—e.g., in Kazakhstan they rose from 4 to 12 quintals per hectare. State farm deliveries of 14 million tons of grain in 1956 were three times as large as in 1955 and within 2 per cent of the 1960 target. On the other hand, in the traditional grain zones—the Ukraine and southern Russia—the crop was smaller than in 1955. Eight million hectares of autumn sowings were lost during the hard spring frosts—more than double the normal loss—and the summer was not as good in those parts as the remarkably favourable one of 1955. In the poorer soil zones to the north—Byelorussia, the Baltic States, the non-black earth areas of north and west Russia—yields remained very poor, largely because of inadequate fertilizer supplies.[4]

Table 1

Crop estimates for the Soviet Union

Millions of tons of barn crop

	1950	1952	1954	1955	1956
Grain	84	95	88	108	130
Cotton	3.6	3.8	4.2	3.9	4.4
Sugar beet	20.7	22.1	19.7	30.5	32.2
Sunflower seed	2.8	3.4	3.0	5.8	6.2
Flax fibre	0.7	0.6	0.6	1.1	1.2
Silk-worm cocoons [a]	26 [b]	[c]	..	24	28

Sources: See Appendix B.

Note. — Absolute figures have been published only for cotton and silk: the remaining figures are secretariat estimates based upon official statements. For the 1960 Plan targets, see Table XXIV, except for silk cocoons (38,000 tons).

[a] Thousands of tons delivered.

[b] 1951.

[c] Extremely poor.

Those crops which are grown mainly in the west and south-west reflected the poorer weather of 1956: yields

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[1] The *Survey* for 1955 estimated the 1955 grain harvest at 129 million tons. As seen in Table 1, the crop seems actually to have been much smaller. For the reasons why the estimates have been so greatly reduced, see footnote 11 in Chapter II. The quantities of the Soviet grain crop on a barn-yield basis have not yet been published for any post-war year.

[2] As compulsory deliveries, purchases and payments in kind for MTS services by collective farms, and as deliveries from State farms, but excluding replacement deliveries of other crops.

[3] Grain stocks are stated to have been adequately replenished.

[4] The Appeal to Farmers issued by the Government on 17 January 1957 said that the grain yield on many farms in these areas was 3 to 4 q/ha., while in four oblasts bordering Moscow oblast the average yield ranged from 5.6 to 6.9 q/ha. although Moscow oblast itself, thanks to better fertilizer application, obtained 10.3 q/ha. (*Selskoe Khozyaistvo*, 17 January 1957).

TABLE 2

Estimates of fodder supplies in the Soviet Union [a]

Millions of tons

	1954	1955	1956	1960 Plan [b]
Maize as grain	4	4	14	47
Other feed grain	8	..	..	18
Silage	32	38	57	176
Roots	9	..	...	38
Potatoes	5	..	..	25
Hay, straw, chaff	129	..	..	178

Sources: *Pravda*, 3 February 1955 and 15 February 1956, Tass despatch of 14 June 1955, *Narodnoe Khozyaistvo SSSR*, p. 101 and Table 10 (Chapter II)

[a] From previous year's crop.

[b] Preliminary plan formulated in February 1955.

of sugar beet and vegetables were less than in 1955, and sunflower-seed yields were unchanged. Sowings had, however, been considerably expanded [5] and this more than offset the falls in yield except in the case of vegetables other than potatoes. Although the crop of other vegetables was smaller, the raising of procurement prices in February 1956 encouraged farms to deliver more to the State than in 1955. The increment in state procurement of these vegetables was nevertheless small and little improvement can be expected in supplies to state shops (which so far have had vegetables on sale for only three or four months of the year): [6] neither the 1956 retail trade results nor the 1957 Plan quotes figures for potato or vegetable sales. The fruit crop was moderate, but the policy (discussed below) of equalizing state purchase prices with local market prices attracted more into the state network and measures aimed at doubling the gross fruit crop in the next year or two have been laid down.[7]

Fodder supplies during 1956 were undoubtedly better than in previous years, as higher milk yields and egg supplies were the first to show. The data in Table 2 show that maize and silage availabilities were larger, and it is clear from reports of the 1956 crop that such supplies will be considerably easier in 1957. Very great emphasis has been placed in the last two years on the construction of silos, in which green maize should become the chief crop laid. In 1953, the silage need per cow was considered to be 5 to 6 tons per year,[8] but then and until 1955 only about 3 tons were being supplied on state and collective farms. In 1956, however, supplies rose to nearly 4½ tons per cow and the Government's Appeal to Farmers in January 1957 expressed the hope that 10 tons per cow could eventually be reached.

At this projected level of feeding, the Appeal estimated a milk yield of 3,000 kg. By 1956, the average milk yield on the collective farms had reached half this figure after a rapid increase since 1954:

Milk Yields

Kg. per cow per year [a]

	1954/55	*1955/56*
Collective farms	1 260	1 597
All state farms [b]	..	2 413
of which: Ministry of State Farms	2 045	2 177

Sources: Collective and state farm yields from *Pravda*, 11 November 1956 and 17 and 31 January 1957; *Kukuruza*, No. 7, 1956, p. 3, *Zhivotnovodstvo*, No. 12, 1956, p. 2 and direct communication to ECE by the Soviet Government.

[a] 1 October to 31 September.

[b] Including cows owned by the Ministry of the Meat and Dairy Industry, which have considerably higher yields than cows on other state farms.

TABLE 3

Milk supplies in the Soviet Union

Millions of tons

	1955		1956		1960, Plan	
	Output	Procurement	Output	Procurement	Output	Procurement
Collective farms	13.8	8.5	17.1 [a]	11.6	..	16.6
State farms	4.1	2.4	4.2 [a]	2.8	..	6.8
Individual holdings	26.4	2.5	..	2.8	..	1.6
Total	44.3	13.4	..	17.3	82	25.0
Of which: Sold as whole milk	2.9 [b]	2.6	..	4.0	..	7.0

Sources: Total from direct communication by Soviet Government to ECE; outputs from yield and cow numbers; procurement and sales from *Molochnaya Promyshlennost*, No. 5, 1956, pp. 24 and 25, No. 8, 1956, p. 3 and No. 1, 1957 and *Izvestia*, 31 January 1957, *Sovkhoznoe Proizvodstvo*, No. 6, 1956 and Plan directives; farm market sales from *Sovetskaya Torgovlya*, p. 185.

[a] 1 October 1955 to 31 September 1956.

[b] Including farm market sales in 251 towns.

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[5] Sugar beet by 25 per cent, sunflowers by 7 per cent and potatoes by 15 per cent.

[6] *Sovetskaya Torgovlya*, 2 June 1956.

[7] See decree of 20 July 1956. Crimean orchards and vineyards, for which a rapid extension is envisaged, are suffering from manpower shortage, and from 1957 onwards some 8,000 to 9,000 families will arrive in the peninsula (*Pravda*, 7 October 1956).

[8] *Zhivotnovodstvo*, No. 4, 1953, p. 7.

TABLE 4

Productive livestock numbers in the Soviet Union

Millions of head at 1 October

	Collective farms		State farms		Individual holdings		Total	
	1955	1956	1955	1956	1955	1956	1955	1956
Cattle	30.7	..	4.6	..	31.8	..	67.1	70.4
Of which : cows	10.8	11.4	1.7	1.8	16.7	17.7	29.2	30.9
Pigs	23.2	26.0	6.6	8.0	22.4	22.4	52.2	56.4
Sheep	82.4	84.1	12.5	12.5	30.1	33.2	125.0	129.8
Goats	2.6	..	—	—	15.1	..	17.7	..

Sources : Narodnoe Khozyaistvo SSSR, pp. 119, 120; *Izvestia*, 31 January 1957.

Gross milk output must have risen substantially in 1956; collective farm output and state procurements were each some 30 per cent larger than in the preceding year (Table 3), while cow numbers (both for collective farms and in aggregate) rose 6 per cent[9] (Table 4). State milk sales increased by 50 per cent; and the output of factory-made cheese increased by 15 per cent, but the excessive price was unchanged[10] and shops were left with surplus stocks.[11]

Meat supplies, on the other hand, were disappointing. State procurement in 1956 was just 9 per cent larger than in 1955 and 11 per cent larger than in 1953, pork accounting for all the increment. It is clear that slaughter weights have as yet shown little improvement. On state farms, which supplied 15 per cent of procurements, animals delivered to abattoirs were in fact of lower weight and poorer quality than in 1955.[12] Poultry numbers declined on collective farms (although they rose on state farms), but, thanks to better feeding, deliveries of eggs to the State were somewhat higher. The Appeal to Farmers commented that meat production was " the most neglected branch of agricultural output ".

Numbers of draught animals have hitherto been declining (Table 5), and in 1955 only 6 per cent of the tractive energy used on collective and state farms was supplied by draught stock. In 1956, however, an increase in horse numbers was planned and the official appeal in February said it was " intolerable that tractors were employed in the winter, using large quantities of expensive fuel for work which can be carried out by draught animals ".[13] This suggestion is presumably intended as a short-term solution, since it runs counter to what is generally regarded as a desirable policy, in the Soviet Union and elsewhere.

Industrial Crops

The crop of vegetable fibres was the best in Soviet history: the area devoted to these crops is not yet back to the pre-war peak, but yields were three times as high:

	1932		1956	
	Area Million ha.	Yield q/ha.	Area Million ha.	Yield q/ha.
Cotton	2.17	6	2.39	18
of which : Uzbekistan	..	..	1.30	22
Flax fibre	2.51	2	2.16	6
Hemp	0.95	3	0.65 [a]	[b]
	5.63	..	5.20	..

Sources : Sotsialisticheskoe Stroitelstvo SSSR, 1936, pp. 291, 345; *The Second Five-year Plan*, 1936, p. 309; *Narodnoe Khozyaistvo SSSR*, p. 106; *Pravda*, 14 and 31 January 1957, *Khlopkovodstvo*, No. 5, 1956, and Table 1.

[a] Estimate derived from the difference between the total increment under industrial crops and that for its main components.

[b] Yields on efficient farms were 5 q/ha. according to *Sotsialisticheskoe Selskoe Khozyaistvo*, No. 11, 1954, p. 91.

TABLE 5

Draught livestock numbers in the Soviet Union

Millions of head at 1 October

	1953	1954	1955
Horses	15.3 [a]	15.4	14.2
Of which: on collective farms	13.2	12.1	10.9
Camels	0.3 [a]	0.4	0.3
Asses and mules	0.9 [a]	1.0	1.0
Oxen	3.6 [a]	2.5	1.9

Sources: Totals directly communicated by Soviet Government to ECE; collective farm ownership from *Narodnoe Khozyaistvo SSSR*, p. 128.

[a] 1 January.

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[9] For a discussion on the patent merits of feeding existing herds better rather than adding to cow numbers, see *Economic Bulletin for Europe*, Vol. 8, No. 3, pp. 26–27.

[10] Whereas a kilogramme of the most common type of Soviet cheese requires at most 10 kg. of milk, its retail price is some 15 times that of milk.

[11] On 1 January 1956, cheese stocks averaged 36 days' sales —slightly above the average for all foodstuffs.

[12] *Sovkhoznoe Proizvodstvo*, No. 8, 1956, p. 4.

[13] See also Professor G. Khitenkov, *Zhivotnovodstvo*, No. 10, 1956, p. 18.

TABLE 6

Industrial production in the Soviet Union

	Percentage annual increments			Price index 1955 (1952 = 100)
	1955	1956	1957 Plan	
	With 1952 price weights where applicable	With 1955 price weights where applicable		
Gross industrial output:	12.2	10.8 [a]	7.1	92 [b]
Producers' goods	14.6	11.4	7.8	87.5
Consumers' goods	7.8	9.4	5.9	100 [b]
Coal	12.6	10	6.5 [c]	95
Oil	19.4	18	15.8	.. [d]
Electric power	12.9	13	10.0	(75) [e]
Ferrous metals	10	7	6	89.5
Engineering and metal-working	19.5	12	10.2	.. [f]
Timber	4.0	4	7.1 [g]	100
Cement	18.4	11	14.7	66.5
Railway freight	13.3 [h]	11 [h]	3.6 [h]	90

Sources : Output indexes from *Narodnoe Khozyaistvo SSSR*, pp. 46, 57, 69, 74, 78, 79 and 177, and *Izvestia*, 7 November 1956, 31 January and 6 February 1957. Price indexes from *Zasedania Verkhovnogo Soveta (3-9 fevralya 1955)*, p. 242, *Gudok*, 23 July 1955 and direct communication from the Soviet Government to ECE.

[a] Given as " almost 11 per cent "; precise figure estimated by weighting sub-groups.

[b] All references to the price reductions of 1 July 1955 (e.g., A. G. Zverev, *Planovoe Khozyaistvo*, No. 1, 1956, p. 20; *Ekonomika promyshlennosti SSSR*, 1956, p. 434, etc.) exclusively specify producer goods and freight tariffs. Prices of some consumers' goods may in fact have risen, reflecting the increases in agricultural procurement prices.

[c] Excluding extraction under the control of republican Ministries of Local Fuel Industry (2 per cent of 1956 output).

[d] Decrease was larger than that for coal.

[e] Cost reduction inclusive of effects of fuel price cuts between 1950 and 1955 (*Energetik*, No. 6, 1956, p. 1).

[f] Prices were decreased by more than the average (cf. Zverev, *loc. cit.*).

[g] Ministry of Timber Industry (65 per cent of 1956 output).

[h] In ton-kilometres.

In the main cotton-growing areas, yields were above the average of recent years. In Uzbekistan, where the largest plantations are to be found, the crop was a record one,[14] and elsewhere, except in Tadzhikistan and the Caucasus, yields were back to the 1953 levels after the poor showings of 1954 and 1955 (due to spring frost and summer rain). The post-war policy of encouraging cotton growing on non-irrigated plantations in the Ukraine, Moldavia and Krasnodar (North Caucasus) was reversed in 1956 and the area reduced, but this reduction was more than offset by extensions of the Central Asian plantations.

The flax area was increased by one-third in the spring of 1956, and hemp plantings also appear to have risen. The renewed encouragement to these highly labour-intensive crops contrasts with the trend in western European countries and is to be explained partly by the insufficiency of other natural and synthetic fabrics—of which the production per head in 1956 was lower than in 1954—and partly by a change-over to mechanical harvesting.[15]

Deliveries of silk cocoons recovered from the effects of the freak frosts of spring 1952 in the Caucasus, but nearly all the increase in production last year was on Uzbek farms.[16]

Industrial Production

Gross industrial output in the Soviet Union was nearly 11 per cent greater than in 1955 (Table 6). This was slightly less than the rate of growth shown for 1955. This decline in the rate of increase of the over-all index was due to a lower rate of growth for producers' goods, while the output of consumers' goods rose somewhat more than in the preceding year. Part of the apparent deceleration in output of producers' goods may have been caused by the effect on the indices of the differential wholesale price-cuts introduced for producers' goods on 1 July 1955.[17]

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[14] It was 22 quintals per hectare compared with 19 quintals in 1955. Tadzhikistan yields, however, were 25 quintals in both years.

[15] The park of flax combines rose from 1,700 in 1950 to 6,400 in 1955 and that of tractor-drawn flax-pullers from 8,000 to 26,000.

[16] Georgian recovery seems to have been less rapid than had been hoped, and the Sixth Five-year Plan directives for Georgia reduce the 1956–60 increase from 75 per cent (in the ten-year plan formulated in 1952) to 31 per cent.

[17] The official index for 1955 was calculated on January 1952 prices, but that for 1956 was based upon July 1955 price-weights. As the data brought together in Table 6 indicate, those goods whose outputs increased more slowly than the average in 1956 (coal, ferrous metals, timber) were reduced in price —relatively to the prices used for the 1952 index—by less than the average while those goods whose output expanded more rapidly (oil, electricity, cement and engineering) suffered larger

The rate of increase of the consumer-goods index, however, appears to have been unaffected by the change in price basis.

No changes in price-weights affect comparison between 1956 and the plan for the current year. Despite the increased availabilities of raw materials of agricultural origin, already described, the relative increment planned for consumers' goods output is significantly smaller than in 1956. Output of producers' goods is also to rise less rapidly than during last year, and in both groups the rates planned are much below the averages implied in the targets for 1960 set up in the original Sixth Five-year Plan directives.

The slackening of the rate of growth planned for 1957 is partly a result of the strain upon supplies of basic raw materials and fuels shown during 1956—though this was indeed no new feature—and the Government's decision in December 1956 to ease this by increasing production stocks. In 1956 the plans for coal, iron and steel, cement, timber and most other building materials were under-fulfilled, but those for manufacturing industry were exceeded. In itself, these shortfalls in key supplies combined with above-plan demand would have thrown the best-formulated plan out of balance, but the insufficient amount and the maldistribution of stocks made the absorption of variations from plan virtually impossible. Manufacturing enterprises have in the past tended to hoard whatever stocks they could obtain—often in defiance of central directives [18]—because of the fear of shortage; if confidence is re-established in the regular flow of materials, some at least of these excess stocks should be liquidated, and it may well be that a relatively small increase in the total amount of stocks will be sufficient to overcome the difficulties.

The basic materials shortages of the past seem to have had a cumulative reaction upon output in certain industries. Shortfalls in building materials, steel and certain types of equipment—e.g., rolling-mill equipment, whose production plan has been under-fulfilled in each of the past four years—have led to under-fulfilments of the construction plans of those industries producing basic materials. Thus in coal-mining, metallurgy, and building materials less than the planned new capacities have been put into commission over the past few years, starting a further round of the vicious circle of shortage. The breaking of the circle, which the 1957 Plan envisages, involves the concentration of resources upon a limited number of projects in the fuel, chemicals, metals and building materials sector and, in principle, upon sites nearing completion.[19] Since the volume of state investments centrally financed is planned to rise by 8 per cent and an increase is planned also for decentralized and co-operative industry, and since work is to be suspended upon less-essential projects, the increment to basic industrial capacity will obviously be substantial. These measures should help to speed up the maturing of investment projects in basic industries, but the increase in output of coal and electricity foreseen for 1957 is nevertheless distinctly smaller than that of the preceding year (Table 6). The expected increase in goods traffic by rail is much lower than the actual increase in 1956. This reflects partly the decline in the rate of increase of coal production and partly the efforts being undertaken to reduce long-distance transport of coal.[20]

The shortfalls in building materials supplies in 1956, which included cement, timber, window-glass, bricks, slate, and pre-cast concrete parts, had their impact also in the under-fulfilment of the house-building target. Supplies available for private house-building continued to increase, however, and it was the state housing sector that suffered most in relation to the targets.[21] Consequently, the number of private houses erected, both urban and rural, increased substantially. The 1957 plan envisages a 28 per cent increase in the number of houses to be built, including both publicly and privately owned dwellings.

As already observed, the gross output of industrial consumer goods rose more rapidly in 1956 than in the previous year. The biggest advances were recorded by those products for which the inputs had made a good showing in 1955—viz. sugar (output of which rose 27 per cent), dairy products (28 per cent)—related to the better feed supplies of that year—tea (20 per cent) and wines (11 per cent). On the other hand, meat processing was only 6 per cent and the fish catch only 4 per cent better than in 1955.

The increase in the gross value of output of consumers' goods was thus highly concentrated on goods, such as dairy products, for which the value added by industry is a relatively small part of the total value of the product. It may be, therefore, that the acceleration of the increase of gross output of consumers'

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price reductions. Moreover, whereas producers' goods prices were reduced by 12½ per cent on average, those of consumers' goods were apparently unchanged: hence the weight of that sector which grew more slowly was enlarged.

[18] At a census of industrial stocks on 1 October 1956, there were on the one hand 16.6 billion roubles of stocks in excess of officially computed normal requirements in enterprises, whereas other enterprises were short of 7.2 billion roubles of normal stocks.

[19] The volume of uncompleted construction at the beginning of 1956 was 150 billion roubles, or exactly equal to the total of fixed investment carried out during the preceding year.

[20] See Chapter VI, Sections 1 and 2.

[21] The share of private purchases in total deliveries fell slightly, but private individuals nevertheless bought 30 per cent more slate, 9 per cent more cement and 6 per cent more glass than in 1955.

goods—from 7.8 per cent in 1955 to 9.4 per cent in 1956—reflects this shift in the composition of output rather than an increase in the rate of growth of net industrial production. The output of cotton fabric was cut back for shortage of raw material, while that of other fabrics, notably from synthetic fibres, rose considerably. In terms of metres woven, output declined but as the expansion was concentrated on the higher-priced cloth, the total retail value of 1956 output may well have been above that of the previous year. Production lines for consumer durables pursued their expansion, but at a less rapid pace than in 1955: the sharpest reduction was in the rate of increase of output of radio and television sets.

Manpower and Productivity

The number of wage earners reached 50 million at the end of 1956—i.e., 2.1 million more than a year earlier. Of this increment, 600,000 were members of industrial co-operatives transferred to the state payroll upon nationalization,[22] so that the net increase in the labour force outside collective farms was 1.5 million. This was more than the increase in 1955 (1.1 million), largely as a result of a reduction in military personnel. Of the total addition to the labour force in 1956, 1.1 million entered the main " productive sectors " of the economy; 300,000, public health and education; and 100,000, trade and municipal services. Employment in administration was reduced.

The increase in industrial employment was 3½ per cent, and it thus accounted for about one-third of the rise in total industrial output, as was also the case in 1955. For 1957, a considerably smaller inflow of manpower is envisaged, and increases in productivity are to account for 80 per cent of the planned 7 per cent rise in industrial output. Manpower in building increased in 1956 at the same rate (3½ per cent) as it had declined during 1955,[23] and since the growth of productivity continued for the second year in succession at the remarkably good rate of 10 per cent, the 1956 rate of increase in output was more than double that of 1955.

The increase in industrial output per man planned for 1957 (5.4 per cent) is relatively low as compared with the rise of 50 per cent in industrial productivity envisaged for the whole period of the Sixth Five-year Plan.[24] It may be, however, that the rate of increase in output per man is expected to accelerate considerably during the five-year period. In any case, the drive for higher productivity is a central issue in Soviet economic policy at present, and a number of measures have been taken since the all-Union Conference of Industrial Workers in May 1955. The 1956 Plan included an order to all ministries running engineering shops to modernize at least 2 per cent of their stock of machine tools and forging pressing plant—viz. about 20,000 tools. The satisfactory execution of this order has led the Government to raise the minimum percentage to a further 5 per cent of machine tools and 3 per cent of forging-pressing plant in the 1957 Plan.[25] The drive for improvement of productivity also lies behind some new measures affecting factory administration. For instance, the responsibilities and the pay of foremen were increased,[26] and the basis of payments for inventions and propositions for rationalization were altered in August 1956.

National Income and Expenditure

The contributions to national product made by each sector in 1956 are indicated by indexes of their gross volume in Table 7. For the first time since the start of the five-year plans, the rate of growth of national product (12 per cent) significantly exceeded that of industry,[27] as a result of a big increase in agricultural output, and peasant incomes rose no less than 12 per cent, compared with 7 per cent in 1955. Since the larger volume of farm goods will become available for distribution only in 1957, real wages rose by no more than 4 per cent in 1956.

Apart from the expansion of the wage-bill in line with the growth of employment, some increases in wage rates occurred—notably for public health staff, building operatives and some agricultural workers. Moreover, a number of measures favouring the lower income groups were introduced, of which the financial effect will be fully felt in 1957. These measures are discussed in detail below.[28]

Both higher output and further increases in state procurement prices contributed to the rise of farm

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[22] Consequent upon the decision of the Central Committee of the Communist Party requiring " a reorganization of handicraft co-operatives so that those which have lost the character of co-operatives be transferred to the State " (*Pravda*, 14 July 1955), 1.2 million still remain as members of handicraft co-operatives after the nationalization of 1956.

[23] The decree which introduced the new building wage structure from 1 January 1956 spoke of the very high labour turnover in construction.

[24] See Chapter II, Table 13.

[25] The significance for productivity of modernization in the engineering industry may be gauged from the fact that this sector comprises over one-third of all industrial employment.

[26] By decree of September 1955. At a foremen's conference in May 1956 managers were invited to give foremen more authority and to enlist their co-operation in improving working techniques.

[27] 1933 was also an exception, but the disturbances of collectivization had so sharply reduced agricultural output in 1932 that this must be regarded as a special case.

[28] See Section 5 of this chapter.

TABLE 7

Net national product of the Soviet Union and indicators of its components

Index numbers

	1951	1952	1953	1954	1955	1956	Plan 1957	Plan 1960
	Preceding year = 100							*(1955 = 100)*
Gross output of:								
Industry	117	112	112	113	112	111	107	165
Building	117	113	104	117	105	114	109 [a]	162
Agriculture	93 *	104 *	103 *	105 *	110 *	114 *	. .	170
Transport	112	110	107	109	113	112	105	155
Trade	113	110	119	115	104	109 [b]	111 [b]	150
Net national product	*112*	*111*	*109*	*112*	*110*	*112*	*108*	*160*

Sources : 1951–55: *Narodnoe Khozvaistvo SSSR*, pp. 30, 36, 46, 159, 174 and 181; 1956: *Izvestia*, 31 January 1957; 1957 plan: *Izvestia*, 6 February 1957; 1960 plan: Plan Directives and (for building) *Voprosy Ekonomiki*, No. 11, 1956, p. 20. The agricultural index is a secretariat estimate based upon crop and produce series (in *Narodnoe Khozyaistvo SSSR*, p. 101 and in the source quoted for 1956–60) and a gross value index for 1952 derivable from Khrushchev (*Pravda*, 15 September 1953) and Shabalin (*Voprosy Ekonomiki*, No. 8, 1953, p. 55) and for 1960 from *Dengi i Kredit*, No. 6, 1956, p. 4.

[a] The series relate to building-installation work, but this figure to gross volume of investment.

[b] The series relate to all retail trade, but these figures to state and co-operative trade only.

incomes during 1956.[29] As the following list shows, most crops grown by collective farms[30] have been affected by price increases since the reforms were initiated in September 1953.

Procurement Price Increases 1953–1956

1953: Meat, dairy produce, eggs, wool, potatoes and other vegetables;
1954: Grain, legumes, flax, linseed, hemp;
1955: Hides;
1956: Cotton, sugar beet, wool, fruit, potatoes and other vegetables, tobacco, furs and skins.

The increases of 1956 have virtually completed the present stage of the agricultural price reform.

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[29] It may roughly be computed that of the 15 billion rouble increment in the money income of collective farms, about one-third was attributable to increases in procurement prices.

[30] Delivery prices for nearly all produce of state farms were raised in January 1954.

TABLE 8

Constituent changes in personal income and outlay in the Soviet Union

Increases or decreases in billions of roubles

INCOME	1956	1957 Plan	OUTLAY	1956	1957 Plan
1. Expansion of labour force	14 *	15 *	8. Increase in sales through state shops .	28	57
2. Increase in average wage	7 *	. .	9. Increase in sales through co-operative shops	15	
of which public health workers	3	—	10. Increase in commission sales on behalf of farms	2	. .
3. Establishment of minimum wage . .	—	8	11. Change in direct taxes	2 *	2½
4. Social insurance disbursements . . .	5	3	12. Raising of tax-free floor to income tax	—	−1½
5. Improved old-age and disability pensions	3	11	13. State Loan subscriptions	2	−6
6. Increase in distributed farm income (including increments in procurement prices)	14	. .	14. Deposits in savings banks	3	½
7. Loan service	2	2½	15. Reductions in charges for social services [a]	−2 *	−2 *
Total known components . . .	45	(39½)	Total known components . . .	50	(50½)

Sources : See Appendix B.

[a] In 1956, abolition of school fees; in 1957, reduction in charges for sanatoria, etc.

TABLE 9

Soviet public accounts

Billions of roubles

	1955 Actual	1956 Budget	1956 Actual[a]	1957 Budget
Revenue				
Turnover tax	242.4	*271.1*	258.1	*277.4*
Dividends from profits	102.8	*107.3*	101.2	*116.0*
Social insurance premia	*26.5*	*28.5* *	28.1	*31.0*
Income of machine-tractor stations	..	..	10.8	*13.9*
Income tax on co-operatives and tax on non-commodity transactions	..	..	6.7	*5.9*
Income tax on collective farms	..	..	7.6	*9.6*
Other revenue from socialized sector	..	..	71.8	*70.7*
Revenue from socialized sector	472.0[a]	*501.3*	484.3	*524.5*
Direct taxes	*48.4*	*50.3*	50.7	*51.5*
State loans	*30.5*	*32.2*	32.8	*27.3*[b]
Increases in savings bank deposits	6.8	*5.0*	10.0	*10.5*
Other revenue from persons	3.8 *	*3.9*	5.2	*3.4*
Revenue from persons	89.5[a]	*91.4*	98.7	*92.7*
TOTAL REVENUE	564.3	*592.7*	583.0	*617.2*
Expenditure				
National economy	232.7	*237.3*	244.5	*244.7*
of which :				
Heavy industry and construction	90.0[a]	*100.9*	..	*103.5*
Light industry	9.0[a]	*9.7*	..	*14.9*
Transport and communications	19.8[a]	*21.8*	..	*18.0*
Machine-tractor stations	*32.1*	*32.7*	..	*34.1*
State farms	*9.2*	*8.0*	..	*9.8*
Procurement	6.8 *	*7.9*	..	*1.4*
Other agriculture			..	*9.0*
Other sectors	63.2[a]	*56.3*	..	*54.0*
Social and cultural measures	147.2	*161.5*	163.7	*188.4*
of which :				
Education	68.9	*72.8*	73.1	*79.0*
Health and physical culture	31.2	*35.1*	35.5	*38.0*
Social security	42.1	*30.5*	31.4	*45.4*
Social insurance		*17.9*	18.6	*20.9*
Family allowances	5.0	*5.2*	5.1	*5.1*
Defence	105.0 *	*102.5*	98.8	*96.7*
Loan service	12.2[a]	*14.0*	13.9	*15.4*
Transfer to Reserve Fund	[c]	[c]	−13.0	*14.0*
Administration	12.5[a]	*12.5*	12.2	*11.9*
Grants to cover loans by investment banks	29.9 *	*41.8*	3.7	*4.1*
Other expenditure			38.2	*29.4*
TOTAL EXPENDITURE	539.5	*569.6*	561.0	*604.6*
of which :				
Investment	*109.3*	*118.4*	..	*130.0*
Surplus	24.8	*23.1*	22.0	*12.6*
Expenditure through Union-Republican budgets	*127.4*	*139.6*	173.0	*194.0*

Sources : SURVEY for 1955, Table 88; *Planovoe Khozyaistvo*, Nos. 1 and 2, 1956; *Zasedania Verkhovnogo Soveta SSSR (26–29 dekabrya 1955)* pp. 12, 18 and 461; and *Izvestia*, 6, 7 and 10 February 1957.

NOTE. — Budget estimates are italicized.

[a] Provisional results.

[b] The increment of 0.8 billion roubles is to be contributed from savings bank funds and not by public subscription.

[c] Included, if any, under " other expenditure ".

Compulsory delivery prices are reported as now covering costs of materials (seed, fertilizer, etc., at present rates of input), payments for labour such that each farm member receives no less than would be earned by a seasonal worker on a state farm, and some contribution towards farm accumulation.[31] State purchase prices for deliveries above compulsory quotas are considerably higher,[32] and this, together with the level at which compulsory deliveries are fixed, leads to disparities between the unit-incomes obtained by individual farms. The efficient farm obtains high premia, but the inefficient farm is penalized by being paid only the low quota price. The margin is illustrated by the receipts of various farms from state deliveries in the Bezhetsky raion of Kalinin oblast :

	Income received, in roubles per quintal, from farms with :		
	Low yields	*Medium yields*	*High yields*
Potatoes	18.3	22.6	24.4
Milk	52.2	80.0	115.8
Cattle (live weight)	212	280	341
Retted flax	328	397	494
Linseed	575	775	920

Source : Kommunist, No. 8, 1956, pp. 43-44.

It will be seen that, for instance, the average price paid for a litre of milk varied from 52 kopeks to 1.16 roubles. It seems to be the view of the Soviet authorities that the disparity in proceeds per unit of output is so large that the system works as a disincentive, rather than as an incentive, for the inefficient farm which risks having little or nothing left for investment and amelioration. The narrowing of the gap in sugar-beet pricing by the decree of 7 June 1956 seemed to indicate the Government's intention to reduce the disparity by bringing prices for compulsory deliveries closer to those for above-quota deliveries, rather than by changing the level of the quotas.[33] An eventual third stage has been mooted—viz. the unification of compulsory quota and above-quota purchase prices at a " correct economic price ",[34] but the Government clearly does not propose any immediate steps in this direction.

Despite these improvements in farm income, the total increase in the money incomes of both farmers and workers planned for 1957 seem cautious in relation to the planned expansion in the volume of retail sales, if personal cash savings remain at the levels shown since 1953. Table 8 suggests that there is scope in 1957 either for additional increments to personal income or for reductions of prices in state shops. The fact that turnover tax receipts are planned to rise by 20 billion roubles in 1957 (see Table 9) further suggests that the Soviet authorities envisage additional increases in money incomes rather than substantial price cuts. On the other hand, farm market prices have been falling under the influence of improved supplies. As Table 10 shows, falls in prices of grain and livestock products brought them closer to state shop prices than they had been since the beginning of 1954; and in some areas (the Ukraine and Moldavia) milk prices on the farm market fell below those of state shops, which is as it should be, given the more hygienic conditions of shop sales. For vegetables, farm market prices are now closer to—although still much higher than—shop prices. For foodstuffs as a whole, farm market prices dropped by 10 per cent between 1955 and 1956.

Private investment in the form of house-building rose in 1956 and, with more materials becoming available, is expected to increase further in 1957. Likewise, an increase is forecast for collective farm

TABLE 10

Indices of prices in collective-farm markets in 71 large towns of the Soviet Union

Year and quarter	Grain and bread	Vegetables	Milk	Butter	All Food
	Contemporary state shop prices = 100				
1954 I	125	529	126	148	157
II	140	560	170	142	169
III	151	202	159	143	183
IV	137	375	150	171	185
1955 I	153		187	209	185
II	147	292	173	191	184
III	137	216	146	170	170
IV	143	266	145	173	158
1956	125 [a]	251 [a]	133 [a]	137 [a]	157
	1940 farm-market prices = 100				
1950	102	95	100	84	98
1954	79	126	106	85	110
1955	83	126	104	100	114
1956	71 [a]	102 [a]	82 [a]	72 [a]	103 [a]

Sources: 1950–55: *Sovetskaya Torgovlya*, 1956, pp. 133, 134 and 183; *Pravda*, 10 November 1956 and 31 January 1957.

a Excluding fourth quarter.

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[31] See the Government's Appeal to Farmers, *Pravda*, 8 April 1956.

[32] And in the case of fruit, follow prices obtaining in free local markets (decree of 20 July 1956).

[33] For a discussion of similar policy issues in eastern Europe, see Section 4 of this chapter.

[34] M. Moiseev, *Kommunist*, No. 8, 1956, p. 45. The prices would be regionally computed to permit the taxation of differential rent.

investment.[35] The volume of state investment is to rise by 9 per cent. Although less than the average annual increase envisaged in the Sixth Five-year Plan, this is a remarkably high rate of growth in view of the fact that from 1955 to 1956 state investment had risen by 17 per cent—i.e., by considerably more than national income. For 1957, national income is planned to increase by 8 per cent. Thus, the investment plan seems to indicate that the higher ratio of investment to national income reached in 1956 is to be maintained and even slightly increased in 1957.

The distribution of investment in 1957 has not been published, but some impression may be gained from the break-down of budget expenditure (Table 9). The small rise in spending on heavy industry as compared with that planned for 1956 allows a larger increase in investment in this sector, because subsidies to the timber industry are to be eliminated by a rise of prices, while the relatively bigger increase in expenditure for agriculture similarly may provide for a still larger increase in agricultural investments, because a smaller part will be needed for subsidies to machine-tractor stations and state forests.

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[35] In 1955, collective farm investment was 18.8 billion roubles, of which 13.6 billion was financed from their own income and the remainder borrowed from the Agricultural Bank; under the 1957 plan about 21 billions will be invested, of which 4.9 billions from Bank loans.

2. Eastern Europe in 1956

Economic developments in 1956 in the eastern European countries were generally less satisfactory than in the Soviet Union. It is true that the rate of increase of industrial production in most of the countries was only slightly below the 11 per cent recorded in the Soviet Union, but in eastern Germany the increase was no more than 7 per cent and in Hungary the virtual stoppage of output for the last 70 days of the year brought industrial production for the year as a whole to a level 14 per cent below that of 1955 (Table 11). The difference between the Soviet Union and eastern Europe was even more pronounced for agricultural output, which fell short of the level of the preceding year not only in Hungary, but in eastern Germany,[36] Rumania, and Bulgaria as well; only Poland and Czechoslovakia reported increases—of 6 and 3 per cent respectively—but the rise in the latter country was only one-third of that foreseen in the plan for 1956.

Agricultural Output

The generally poorer showing of eastern European agriculture in 1956 than in 1955 seems to have been due chiefly to adverse weather conditions. The harvest of cereals, and particularly of coarse grain, was nearly everywhere lower than the harvest of 1955 or the average for the years 1953 to 1955 (Table 12). Similarly, the sugar beet harvest and several other crops seem to have been generally bad. Only potatoes showed a good result in most of the countries.[37]

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[36] Although gross output of agriculture increased by 1 per cent, net output declined somewhat.

[37] In Czechoslovakia, the only country where the harvest of cereals exceeded the 1955 level, the harvest of all crop products was nevertheless slightly below the results for that year, owing mainly to a bad harvest of sugar beet and fodder roots, which decreased by 16 and 17 per cent, respectively, compared with the average for the years 1948 to 1955.

Table 11

Change in gross output in industry and agriculture in eastern European countries

Percentage increases over previous year

Country	Industrial output				Agricultural output			
	1955 Actual	1956 Plan [a]	1956 Actual	1957 Plan	1955 Actual	1956 Plan	1956 Actual	1957 Plan
Albania	13	11	8	24	. .	. .	. .	. .
Bulgaria	10	12	16	8	30	18	−5 *	32
Czechoslovakia	11	9	10	8	12	9	3	7 [b]
Eastern Germany	8	9	7	7	1	. .	1	. .
Hungary	8	6	−14	−7 *	12	3	. .	. .
Poland	11	7	10	4	3	6	6	3
Rumania	14	. .	11	4	25	. .	−15 *	. .

Sources : Plans and plan fulfilment reports.

[a] Original plan. The planned increases for Albania and Czechoslovakia were later revised to 6 and 7 per cent respectively.

[b] In the 1957 Plan, coarse grain and bread grain output are forecast to increase by 16 and 8 per cent, respectively (*Rudé Právo*, 6 January 1957).

TABLE 12

Harvest of main crops in eastern Europe

Country	All cereals					Bread grain		Potatoes		Sugar beet	
	1953–55 average	1955	1956	1956 over 1953–55 average	1956 over 1955	1956 over 1953–55 average	1956 over 1955	1956 over 1953–55 average	1956 over 1955	1956 over 1953–55 average	1956 over 1955
	Millions of tons			*Percentage increase*							
Bulgaria	4.1	4.6	3.6	−13	−23	−16	−16	..	..	42	61
Czechoslovakia	4.7	5.1	5.4	15	7	10	6	13	12	−22	−27
Eastern Germany	6.4	6.5	5.9	−7	−10	−6	−8	11	32	−20	−15
Hungary	6.1	6.6	4.9	−20	−25	−15	−19	4	−11	−19	−20
Poland [a]	11.2	12.7	12.1	8	−5	10	−5	21	41	−10	−13

Sources: Plans and plan fulfilment reports, as well as direct communications from the Governments. In addition for **Hungary**: *Szabad Nép*, 4 and 20 October 1956, *Népszabadság*, 26 February 1957; and for **Bulgaria**: *Rabotnichesko Delo*, 28-29 December 1956.

[a] Wheat, rye, barley and oats.

Meat production increased considerably in Bulgaria, Czechoslovakia, eastern Germany and Poland, but in some countries this may have been due to extraordinary slaughterings caused by the bad harvest. Excessive slaughterings of pigs are reported to have taken place in Hungary during this winter; the combination of a very bad fodder harvest and the cancelling in the autumn of obligatory grain deliveries have created a critical situation for livestock breeding in state and co-operative farms. In eastern Germany, too, pig numbers were reduced in 1956 and milk production declined.

The continuing rapid growth in the output of animal products in Czechoslovakia—9 per cent in 1956, as against 8 per cent in 1955—was accompanied by sharp increases in prices paid to farmers and therefore by a still more rapid rise in farm income.[38] The latter rose by 20 per cent from 1955 to 1956, following a 25 per cent increase a year earlier. Since 1953, milk prices paid to farmers have gone up by 40 per cent and pork prices by 50 per cent, and prices of beef have more than doubled.[39] It is remarkable that these price increases have not been reflected in the cost-of-living index. On the contrary, retail food prices have declined steadily, and were 20 per cent lower at the end of 1956 than in the middle of 1953. These divergent trends in producer prices and consumer prices for food have probably been brought about through shifts in turnover taxes and retail trade profits. In January 1957 some agricultural prices were adjusted downward, and it is hoped that the rate of increase of farm income can be kept down to 7 per cent in the current year; it is not known on what expectations for output this estimate is based.

Although the rate of decrease of the agricultural labour force in Czechoslovakia seems to be no greater than in western European countries—the average annual decline between 1948 and 1956 was 2.4 per cent—the concern about labour shortage is much greater because of the low degree of mechanization of agriculture. The tractor stock in relation to the agricultural area is less than half that of eastern Germany and not much more than 10 per cent of that of western Germany; and the annual rate of increase is also only a fraction of that in either eastern or western Germany, and much lower than in any other eastern European country (see Table 7 in Chapter II). In 1956, the number of tractors delivered, though a record for Czechoslovakia, was still only 6,746.

Instead of undertaking a major effort to increase the degree of mechanization, strenuous efforts have been deployed in Czechoslovakia, ever since the launching of the special Four-year Plan for agriculture in May 1954, to attract labour to this sector. These efforts were successful in so far as employment in agriculture rose by 13 per cent from the low point in 1953 to the end of 1956. But still nearly half a million hectares in the borderlands, or more than 5 per cent of the agricultural area, are idle. In Poland, where the tractor stock is even lower than in Czechoslovakia, the supply of machinery was insufficient in 1956, and the increase was somewhat lower than that foreseen in the plan. Progress in the mechanization of agriculture was much more satisfactory in Bulgaria and eastern Germany. In the latter country, the performance of the MTS increased by 22 per cent compared with 1955.

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[38] For further discussion of Czechoslovak farm price policy, see Section 4 of this chapter.

[39] The price paid to Czechoslovak farmers per kg. of wheat delivered above the quota even reached the price of a kg. of bread. (*Rudé Právo*, 13 December 1956.)

TABLE 13

Output of coal and lignite in eastern Europe in 1956 and plans for 1957

Hard-coal equivalent

Country	1956			1957
	Millions of tons	Plan	Actual	Plan
		Percentage increase over previous year		
Albania	0.2	12	14	10
Bulgaria	5.3	13	5	5
Czechoslovakia . .	46.6	9	9½	6
Eastern Germany .	60.3	6	2½	4
Hungary	9.9	7½	−7½	−27 [a]
Poland	97.6	2	1	−2
Rumania	3.4	. .	6	. .
TOTAL . . .	223.3	5	2½	½

Sources : Plans and plan fulfilment reports; *Fontosabb adatol az 1956 október-decemberi idöszakról*, p. 5, and Appendix Table XXVIII.

[a] Provisional plan decreed in January.

Industrial Output and Fuel Supplies

As already mentioned, gross industrial production rose considerably from 1955 to 1956 in all eastern European countries except Hungary and eastern Germany. However, in Czechoslovakia and Poland, the rate of increase tended to slow down towards the end of the year. This, as well as the under-fulfilment of the production plan in eastern Germany, was caused largely by the fuel crisis which developed in the latter half of the year.

Production of coal and lignite taken together hardly rose at all from 1955 to 1956, either in Poland or in eastern Germany (Table 13), and Polish exports were cut back sharply, with particularly unfavourable effects for eastern Germany. Two of the blast furnaces in Stalinstadt had to be cooled for lack of Polish coke, and the stepping-up of domestic brown-coal production became a key problem for the eastern German economy: even skilled ship-building workers were transferred to the lignite mines. The fuel shortage was further accentuated by the stagnation of oil production in Rumania and the sharp decline in Hungary.

The effects of the fuel crisis on steel production were felt in the countries normally importing fuel from Poland rather than in Poland itself, where steel output increased at a satisfactory rate.[39a] The deceleration of the increase in output in eastern Germany and in Czechoslovakia was accompanied by shortfalls in capacity utilization in the engineering industries. As a result, the output pattern of the engineering industries is to be revised with a view to increasing the share of products with a low metal content. This in turn implies a reconsideration of the earlier agreements on specialization amongst the engineering industries in eastern European countries.

Despite the shortages of fuels and metals, industrial output of producer goods rose from 1955 to 1956 by 12 to 14 per cent in Czechoslovakia, Rumania and Bulgaria, and by 9 per cent in Poland; in all four countries the plan for the year was more than fulfilled (Table 14). The plan for industrial output of consumer goods was also fulfilled, or exceeded, in these countries, and in Poland and Bulgaria the increase was larger than that for producers' goods.

Bulgarian industry did not suffer from shortage of fuel, and industrial output, particularly of consumers' goods, increased at a remarkable rate. Further progress in 1957 depends to a great extent upon overcoming the difficulties in the supply of raw materials, which have probably been enhanced by the bad 1956 harvest. In order to help solve the attendant employment problem, a recent agreement with the Soviet Union provides for deliveries of raw materials for return after processing in Bulgaria.

Industrial employment in Bulgaria increased by 4 per cent from 1955 to 1956, as against only 2 per cent

TABLE 14

Changes in industrial output in eastern Europe

Percentage increases over previous year

	1955 Actual	1956 Plan	1956 Actual	1957 Plan
Bulgaria [a]				
Producers' goods	15	10	12	10
Consumers' goods	7	15	20	7
Czechoslovakia				
Producers' goods	8	10	12	8
Consumers' goods	13	7	7	7 [c]
Poland				
Producers' goods	. .	7	9	4 [b]
Consumers' goods	. .	7	11	
Rumania				
Producers' goods	16	. .	14	5
Consumers' goods	10	. .	7	2

Sources : Plans and plan fulfilment reports.

[a] The figures were estimated on the basis of plan fulfilment reports on production by Ministries.

[b] Plan for total industrial output.

[c] Food industry is planned to increase by 6 per cent.

[39a] However, several measures had to be taken to reduce fuel consumption; for instance railway traffic was reduced and the production of aluminium had to be stopped.

TABLE 15

Changes in industrial employment and output per man in eastern Europe

Percentage increases over previous year

	1955	1956		1957
	Actual	Plan	Actual	Plan
Bulgaria				
Employment	2	4	4	6
Output per man . . .	8	8	12	2 [a]
Czechoslovakia				
Employment	2	2	3	2
Output per man . . .	8	7	7	5
Eastern Germany [b] . . .				
Employment	—	1	— *	..
Output per man . . .	7	9	8	..
Hungary				
Employment	2	1	2 [c]	..
Output per man . . .	6	5	5 [c]	..
Poland				
Employment	4	..	4	2
Output per man . . .	7	..	5	2
Rumania				
Employment	3	..	2	..
Output per man . . .	11	..	9	..

Sources: Plan and plan fulfilment reports.

[a] Republican-controlled industry only.

[b] Centrally-managed state industry only (corresponding to about 70 per cent of total industrial production).

[c] First nine months of 1956 compared with the corresponding period of 1955

in the preceding year, while the rise in output per man was more rapid (Table 15). It seems that, owing to the difficult employment situation, the emphasis in Bulgaria in 1957 is on increasing production by taking in more manpower rather than by raising productivity. Recently, negotiations were initiated for emigration of Bulgarian workers to Czechoslovakia. This attempt to increase labour mobility is an interesting new feature in post-war economic relations among eastern European countries.

The growth in industrial output in eastern Europe from 1955 to 1956 was made possible mainly, or in some countries even exclusively, by increases in output per man. Changes in industrial employment were small, except of course in Hungary, where production virtually stopped in the latter part of the year.[40]

Investment

It was intended in all the eastern European countries starting a new long-term plan period in 1956 that this year should give renewed emphasis to investment. The plans for the year foresaw increases in investment ranging from 14 to 40 per cent in all the countries apart from Poland, where a rise of 8 per cent was planned, and Bulgaria—still in execution of its 1953-1957 plan—where investment was planned to decline by 14 per cent.

Actual investment in 1956 did not conform to these expectations. Declines were registered in Bulgaria (by more than that planned) and in Hungary; investment failed to increase in Poland, and the increases in the other countries were much smaller than planned. In eastern Germany, the actual rise was 34 per cent instead of 40, and in Czechoslovakia and Rumania 12 and 15 per cent respectively, instead of the planned 21 per cent. (Table 16.)

There is little quantitative information so far available to show which sectors were mainly responsible for these shortfalls. The incomplete information given in Table 17 suggests, however, that house-building generally lagged behind. The under-fulfilment seems to have been particularly pronounced in house-building by the State, while co-operative and private house-building increased in a number of countries. In Poland, it is intended to increase non-state house-building in the towns very considerably, and in 1957 bank credits to the amount of 400 million zlotys, or four times as much as in 1956, will be made available for private construction in towns. In Bulgaria, where the statistics include also country dwellings, the state sector now accounts for only one-third of total house-building (measured in square metres of floor space), and a very large amount of private house-building undertaken by members of co-operative farms and others is going on all over the countryside.[41] Rumania is the only country to report a large increase

TABLE 16

State investment in eastern Europe in 1956

Percentage increases over previous year

Country	1955		1956		1957
	Plan	Actual	Plan	Actual	Plan
Bulgaria	14	8	−14	−17	−17
Czechoslovakia . .	—	1	21	12	13
Eastern Germany .	..	12	40	34	3
Hungary [a]	−17	−5	14	−11	−33
Poland	−2	3	8	—	6
Rumania	..	11	21	15	−13

Sources: Plans and plan fulfilment reports, statistical yearbooks and bulletins.

[a] Total investment, except for the 1957 Plan, where the percentage refers to state investment only (*Népakarat*, 27 January 1957).

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[40] For detailed information on output of main industrial commodities, see Appendix Table XXIX.

[41] The amount of 200 million leva was allocated for private and co-operative building in 1957, as compared with 102 million in 1956.

TABLE 17

Construction of dwellings in eastern Europe

	1955	1956		1957
	Thousands	Plan	Actual	Plan
		Percentage increases over previous year		
Bulgaria				
State sector (m²)	634	−17	..	..
Others (m²)	1 151	..	..	..
Total	1 785	..	..	..
Czechoslovakia				
State sector (number)	32 [a]	12	−10	19
Others	17 [a]	..	13	..
Total	49 [a]	..	−3	..
Eastern Germany (m²)	1 600	36	[b]	..
Hungary (number)	32	25	−62 *[c]	230
Poland				
State sector [d] (rooms)	148	..	−18 [b]	−1 [e]
Others (rooms)	18	..	[b]	106 [e]
Total in towns (rooms)	166	6	− 6 [b]	11 [e]
Rumania				
State sector (number)	13	..	23	..

Sources: Plans and plan fulfilment reports, statistical yearbooks and bulletins.

[a] 1956.

[b] Plan under-fulfilled.

[c] Assuming about 30 per cent fulfilment of the plan for completions, which has actually been reached for state-built houses (*Fontosabb adatol az 1956 október decemberi időszakról*, Budapest, p. 43, and *Népakarat*, 30 January 1957).

[d] Including local government. The State Housing Corporation (ZOR), which represents 70 per cent of all State housing construction, fell 16 per cent below the yearly plan.

[e] Percentage increases over 1955.

(23 per cent) in state house-building, but the absolute amount seems to be very small [42] and it is largely concentrated on the construction of workers' dwellings in the coal-mining regions and in the oilfields.

The unsatisfactory investment performance led to decisions to concentrate efforts on completion of projects under construction,[43] and at the same time the need to give priority to investment in coal mining, electric power and other basic industries was stressed, especially in eastern Germany and Czechoslovakia. In the former country, the investment plan for 1957 is below the level planned for last year, but 3 per cent above the level actually reached. However, the plan is not fully covered by raw material supplies, and will probably have to be cut further. In Bulgaria, Hungary and Rumania also the intention seems to be to cut investment in 1957, in the case of Hungary to little more than half the level which had been planned for 1956.

Real Wages and Supply of Consumers' Goods

The changes in real wages in eastern Europe in 1956 show a rather diversified picture (Table 18). In eastern Germany and Hungary, the improvements were small both in absolute terms and in comparison with the progress made in the two previous years, while the increases in Czechoslovakia, Bulgaria and Poland were very considerable. In Poland the increase even approached the rate of the exceptionally favourable year 1954—a year when policy changes, together with the excellent 1953 harvest, had reversed the 1950-1953 stagnation or decline in real wages by a sudden and sharp rise all over eastern Europe.

TABLE 18

Changes in wages, cost of living and retail trade turnover in eastern Europe

Percentage increases over preceding year. Figures in italics are derived from the other series

	Money wages per worker employed				Cost of living			Real wages			Retail sales [a]		
	1954	1955	1956	1957 Plan	1954	1955	1956	1954	1955	1956	1954	1955	1956
Bulgaria	6	2	2	4	−11 [b]	−6 [b]	−6 [b]	18	10	10	27	12	15
Czechoslovakia	7	2	4	..	*−7* [c]		−2	17 [c]		6	20	11	9
Eastern Germany	9	3	3	5-6	−7	−2	—	*18*	*5*	*3* *	14	6	4
Hungary	13 *	5	7 *	10	−2 *	*−1*	4 *	15	4	*3*	20	5	14 *
Poland	6	5	12	3 *	−6 [b]	−2 [b]	— [b]	*13*	*7*	12	18	11	15
Rumania	..	..	..	..	..	..	..	..	..	..	15 [d]	10 [d]	12 [d]

Sources: See Appendix B.

[a] Excluding free farm markets.

[b] Price index of consumers' goods and services.

[c] Change from 1953 to 1955, practically all of which took place in 1954.

[d] Socialized sector only.

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[42] Housing was planned to take only 6 per cent of total Rumanian state investment in 1956.

[43] The need for such concentration is illustrated by recent developments in Rumania. In 1956, unfinished investment projects increased once again in striking proportions: while the plan for gross investment was fulfilled to 94 per cent, that for completions was fulfilled to only 74 per cent.

In contrast to 1954, when the improvement in real wages had to a large extent been accomplished through a reduction of prices, changes in 1956 were mainly due to increases in money wages. Already in 1955, the price reductions had been much smaller than in 1954; and in 1956, Bulgaria and Czechoslovakia were the only countries to continue the traditional policy of price reduction as a means of improving living standards.[44] In Czechoslovakia, money wages increased in 1956 by four per cent and, until December, price reductions were limited. Nevertheless, there were complaints that some of the products for which prices had been cut disappeared from the market and were replaced by new products at higher prices.[45] In December, however, a new series of price reductions was announced which implies a reduction of about 5 per cent in the cost-of-living index.[46] This will to some extent be offset by an increase in rents for urban dwellings, effective from July 1957.[47]

Both in Czechoslovakia and in Poland, the increase in money wages in 1956 was greater than intended, as witnessed by the unauthorized over-spending of wage funds to the order of 2½ per cent in the former and 10 per cent in the latter country. A serious situation developed by the end of the year in Poland, where political events had created a favourable climate for a positive response to workers' demands, and control over the total wage bill seems to have got out of hand.[48]

In order to tighten up financial discipline in the enterprises and to lessen the danger of inflation, the Polish Government had to re-impose bank control over the administration of certain funds which had only recently been exempted from control as part of the decentralization policy. So far, it has been possible to meet the pressure of market demand resulting from increases in money wages, peasants' incomes and social expenditure, by above-the-plan supplies of meat, by additional imports of consumers' goods from the Soviet Union and Czechoslovakia, and by running down stocks. It has been strongly stressed in official statements, however, that in 1957 there will be scope for only a very limited further improvement, consisting mainly of wage increases for miners and workers in the metallurgical industries, and slight increases in family allowances.

The volume of retail sales in eastern Europe usually rises more rapidly than real wages, and this was true also in 1956. But while the difference in earlier years mainly reflected increases in employment, and sometimes a more rapid growth of farm incomes than of workers' incomes, it would seem that in 1956 part of the rise in the volume of retail sales was due to the buying spree which accompanied the events in Hungary and Egypt in the autumn. Part of the increases may also reflect improved supplies of agricultural tools and building materials to shops in rural districts.

The bad 1956 harvest in eastern Europe tends to reduce the scope for improvements in living standards in 1957. The good Soviet harvest may make it possible to raise imports enough to avoid a decline in food standards; but, apart from exceptional cases, it seems unlikely that it would be possible to raise imports so much that the rate of improvement in food standards, and in particular of meat supplies, accomplished last year could be maintained in 1957, even though some increase in meat imports is planned in eastern Germany. If the pressure for higher money wages continues to be strong, there is a danger that inflationary tendencies may emerge, at least in those eastern European countries where the harvest was particularly bad. Better supplies of industrial goods may tend to reduce this danger, but they would have to be of good quality, since reports are frequent about buyers' resistance against low-quality textiles and other consumers' goods. A more important limitation, however, is that the income elasticity of demand for food, and in particular for meat, is still so high among eastern European workers that there is relatively little scope for improvement in real wages, if major improvements in food supplies cannot be undertaken. Otherwise, unduly large increases in workers' purchasing power may result in more queueing in food shops and rises in free market food prices.

Economic Prospects in Hungary

The recent political events in Hungary have profoundly changed the economic prospects for 1957 in that country. The war damage to capital in late 1944 and early 1945 was, of course, much more serious than in November 1955 as were also the losses to the labour force. However, the recent exodus may have reduced the industrial labour force by as much as 10 per cent, in addition to the losses through casualties. On the other hand, the psychological atmosphere is basically different: the return to normal economic life and work discipline seems to be much more difficult to achieve than it was at the end of the war in 1945.

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[44] The price cuts in eastern Germany in June 1956 affected almost exclusively expensive consumer durables.

[45] Mrs. Jankovcová, Vice Prime Minister, observed that there had been individual cases of this kind, particularly in lines where there was a large assortment and differences in quality were difficult to check. She added that " irresponsible individuals in factories or branches of retail trade apparently seek in this way to improve the financial position of their enterprises, but this is a direct violation of the Government's state price policy, and measures have already been taken to ensure a strict control over prices of new products."

[46] Prices were cut for a wide range of food products (including for the first time since June 1953 meat and meat products) and some industrial articles such as wireless sets, cameras and watches.

[47] A tax is to be levied on dwelling space beyond a certain minimum. This is intended to alleviate the housing shortage by providing an incentive for sub-letting or moving into smaller flats.

[48] Compared with the corresponding months in 1955, the wage bill increased in 1956 by 18 per cent in July, 21 in August, 22 in September, 25 in October and 29 in November. (*Trybuna Ludu*, 4 December 1956.)

In January 1957, industrial production was still at a level only 35 to 40 per cent of that reached in the first nine months of 1956; the corresponding figure for coal production was around 60 per cent, for food processing around 70 per cent, and for light industry 45 to 50 per cent and for heavy industry perhaps as low as 20 to 25 per cent. These unequal percentages reflect to some extent a deliberate effort to create maximum employment with the available fuel and raw material supplies. Agricultural production was less affected by the events in October and November, but present short-term prospects are severely affected by the bad harvest and by excessive slaughterings during the winter, as has already been mentioned.

The latent potentialities of the Hungarian economy are no doubt much greater than 12 years ago, because of the large investments which have been undertaken since then and the larger foreign loans or grants now available as compared with the burden of reparations in the earlier period. The good Soviet harvest may make it possible for Hungary to overcome part of its difficulties by drawing on the recent Soviet loan, amounting to one billion roubles, destined for supplies of fuel, raw materials, and grain. Moreover, further quantities of foodstuffs and raw materials may be obtained from the west. It is likely, therefore, that the problem of supplies will prove less difficult to solve than that of creating proper incentives to work.

A swift economic rehabilitation, similar to that of the years 1945 to 1948, depends upon the co-operation given by workers and peasants. Some responsibility, though more limited than that earlier promised, has been given to workers' councils and, as will be seen in a later section of this chapter, some changes have taken place both in the institutional structure of agriculture and in the system of deliveries and sales. It still remains to be seen, however, whether these changes provide sufficient incentives for the working population to allow a full utilization of the existing possibilities for a rapid reconstruction of the economy.

Two alternative lines of economic policy are open to the Hungarian authorities. One possibility is to maintain wage payments more or less at their former level and thus to allow an increase in consumers' prices to adjust real wages to the lower availabilities of consumers' goods. The alternative policy—which is that actually chosen by the Hungarian authorities—is that of financial austerity: public investment expenditure has been cut drastically, with the inevitable result of large-scale unemployment. The choice has thus been to maintain, more or less, the real wages of employed workers and to place the burden of adjustment on the living standards of the unemployed. However, a reduction of the wage bill through dismissals seems to meet difficulties, and in the first six weeks of 1957 only a moderate increase in unemployment was registered.

3. THE FOREIGN TRADE OF EASTERN EUROPE AND THE SOVIET UNION IN 1956

In spite of some adversities, the over-all development of trade, as measured by the current value of trade turnover, showed a rather favourable picture in 1956. Considerable increases in turnover were registered in the Soviet Union, Czechoslovakia and eastern Germany, as can be seen from Table 19. For the second year in succession, trade increased more in Czechoslovakia than in any of the other countries, and the level of turnover reached in 1956 was more than 30 per cent higher than that of 1954. By contrast, Poland's foreign trade turnover showed little increase, owing primarily to difficulties in coal exports. Hungary's trade came almost to a standstill in the fourth quarter, and the result for the year as a whole was far below the level of the preceding year.[49]

However, the figures for total trade turnover tend perhaps to give a somewhat too favourable impression. In some countries—Poland, eastern Germany, Bulgaria and Rumania—failure to reach the planned targets for exports was accompanied by increases—often unforeseen—in imports, so that the rise in total trade was sometimes achieved at the price of a deterioration in trade balances. For some time the eastern European countries, with the exception of Poland, have been running an export surplus in commodity trade, largely accounted for by trade with the Soviet Union. Although no figures are as yet available for 1956, it seems likely that the surplus was reduced in eastern Germany and Bulgaria and turned into a deficit in Rumania and Hungary. For the first time in several years Poland showed an export surplus in 1956, amounting to some $5 million.

The fuel crisis, which was mentioned in an earlier section, had severe repercussions on the trade of several countries in the region. Polish exports of hard coal had been planned at 24.5 million tons for 1956. The shortfall, due to smaller output and larger domestic requirements, was no less than 5 million tons, representing a loss in export proceeds of about $100 million. Similarly, coke exports from Poland failed to reach the expected level. The decline in Polish exports of fuel had serious effects on production—and indirectly on export availabilities—in eastern Germany, while Czechoslovakia seems to have been less affected, thanks to increased imports of coal from the Soviet Union. The decline in Polish coal exports also aggravated the fuel crisis in Hungary, where the flooding of oilfields had already created a severe fuel shortage. The difficulties in fuel supply were further enhanced towards the end of the year by the virtual stoppage of Hungarian production and of transit shipments through Hungary of Rumanian oil to Poland, eastern Germany and Czechoslovakia.

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[49] Hungary's exports and imports amounted in the fourth quarter to 350 and 400 million forints respectively, as against planned exports and imports of 2.5 and 1.5 billion forints.

The unfavourable harvest in Hungary, Bulgaria and Rumania probably weakened the foreign trade position of these countries, although the main effect may be felt in 1957. Bulgaria was able to offset part of the decline in agricultural exports by increased exports of ore concentrates, while Rumania, owing to the shortfall of agricultural exports, had difficulties in financing essential imports, notably steel products. Poland had a rather good harvest, but even so continued to be heavily dependent on grain imports, and exports of sugar, pork and eggs fell by some 20 per cent, owing to increased domestic demand. The grain deficit continues to be a heavy burden on the foreign balance of Czechoslovakia, eastern Germany and Poland, accounting for about 10 per cent of the total import bill, as seen below:

Imports of Grain in 1955/56

	(Millions of tons)	(Millions of dollars)[a]	(Per cent of total imports)
Czechoslovakia . .	1.4	120	10
Eastern Germany .	1.3	110	9
Poland	1.2	100	11

Source : Direct communications to ECE from the countries concerned

[a] Estimate based on world market prices.

The Regional Distribution of Trade

Provisional estimates suggest that the share of the western trading region in the total trade of eastern Europe and the Soviet Union continued to increase in 1956 and probably exceeded one-third. This is in line with official policy announcements in eastern Europe which frequently refer to the ever-increasing relative, as well as absolute, importance of the western world as a supplier of and a market for eastern European countries.

However, the increase in 1956 in the share of the western trading region is probably to be explained largely as a result of special difficulties in trade between the eastern European countries and the Soviet Union. In particular, it seems that the eastern European countries have had some difficulties in covering their import needs for raw materials and grain by deliveries from the Soviet Union.[50] For instance, out of total imports of 3.9 million tons of grain in the year July 1955 to June 1956, no more than 1.7 million tons were supplied by the Soviet Union.

TABLE 19

Changes in foreign trade turnover of eastern European countries and the Soviet Union

Percentage increase over the previous year

Country	Actual 1955	Plan 1956	Actual 1956	Plan 1957
Bulgaria	−1	25	a	22
Czechoslovakia	15	. .	16	11
Eastern Germany . . .	3	15	12	25
Hungary	10	6	−31	−23
Poland	4	. .	2	7
Soviet Union	0	. .	9	. .

Sources : Plan fulfilment reports, statistical yearbooks and *Rabotnichesko Delo*, 29 December 1956; *Neues Deutschland*, 30 December 1956; *Népszabadság*, 5 January 1957; *Tryhuna Ludu*, 13 November 1956; *Zycie Warszawy*, 1 February 1957; *Izvestia*, 31 January and 6 February 1956; *Soviet News*, 3 October 1956 (quoting *Partinaya Zhizn*); *Pravda*, 9 August 1955. See also *Economic Bulletin for Europe*, Vol. 8, No. 3, p. 41.

[a] Increase.

Several factors may help to explain this. It is possible that increased Soviet deliveries to China have reduced the amounts of some raw materials available for export to eastern Europe, but probably more important were the difficulties of eastern European countries in financing imports from the Soviet Union. Soviet credits extended in earlier years had mostly been used up and repayment had started by 1956. The eastern European countries were therefore faced with the necessity to build up an export surplus in their trade with the Soviet Union, and since, as it seems, Soviet orders for imports of industrial products from eastern Europe failed to increase, it was difficult to finance a greater, or even an unchanged, volume of imports from the Soviet Union.

In the second half of 1956 the picture seemed to be changing again. First, the excellent Soviet harvest in 1956, following a good harvest in 1955, has probably removed the difficulties in meeting eastern European import needs for 1957. Extra supplies of raw materials

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[50] The Soviet Union's trade in cereals in 1955/56 (July/June) (in thousand metric tons) was as follows :

		Total cereals	*Of which : wheat*
Exports:	Total	2 604	1 016
	Czechoslovakia	852	348
	Hungary	34	25
	Eastern Germany . .	737	101
	Poland	51	42
	Rumania	58	58
Imports:	Total	364	270

Source : Direct communication to ECE from the Soviet Government.

TABLE 20

Credit arrangements of eastern European countries from December 1955 to February 1957

Date	Debtor	Creditor	Amount of loan (*Million roubles*) Total	Amount of loan (*Million roubles*) Free currency	Period of repayment	Specified purpose	Other facilities
Dec. 1955	Afghanistan	Soviet Union	400	—	30 years	Economic development	
Feb. 1956	Yugoslavia	Czechoslovakia	200	—	10 years after the credit has been exhausted	Purchase of capital goods during two or three years	Credit will be repaid by the export of comn modities
			100	—	Do.	Purchase of consumers' goods during two or three years	Do.
Feb. 1956	Yugoslavia	Soviet Union	120	120	10 years	Replenishing Yugoslav currency reserves	
			216	—	10 years from 1959	Purchase of various commodities	
Feb. 1956	Bulgaria	Soviet Union	370	—	10 years	Purchase of Soviet agricultural machinery and equipment for fertilizer factories	
Not known	Bulgaria	Eastern Germany	Not known	—	Not known	Building textile factories	
July 1956	Eastern Germany	Soviet Union	Not known	—	Not known		Reduction in east German share of occupation cost from 1.6 to 0.8 billion DM. Increase in price paid for uranium
Aug. 1956	Yugoslavia	Soviet Union Eastern Germany	700 [a]	—	10 years	Building an aluminium project of 50,000 tons' capacity	Credit will be repaid by deliveries of aluminium
Sept. 1956	India	Soviet Union	460	—	12 years	To finance the building of two steel works	
Sept. 1956	Indonesia	Soviet Union	400	—	12 years	Economic development	
Sept. 1956	Poland	Soviet Union	100	an unspecified part	1957–1960	Purchase in Soviet Union of copper, rubber, fats	(1) 4–6 years' postponement of repayment of 810 million roubles of older debts; (2) repayment of loans contracted in 1947–1949 to be made in commodities instead of free currencies
Oct. 1956	Hungary	Soviet Union	100	40	1960–1965	Purchase from Soviet Union of fuels and raw materials—e.g., coke, lead, cotton, artificial fibre	
Nov. 1956	Poland	Soviet Union	400	—	1961–1962	Purchase of 1.4 million tons of Soviet grain in 1957	All Poland's debts to the Soviet Union (2.100 million roubles) are cancelled (considered as paid by past Polish deliveries of coal)
			700 (available in 1958–1960)	—	1963–1965	Purchases in the Soviet Union	Agreements in principle on supplementary fees to be paid for commercial transit through Polish territory
Dec. 1956	Rumania	Soviet Union	270	—	10 years from the date of completion	Building chemical industry	(1) Repayment by deliveries of chemicals (2) Repayment of credits granted during 1949–1956 postponed for four years (3) Cancelling of 4.3 billion lei, representing part of the Rumanian debt for the purchase of the Soviet share in mixed societies

TABLE 20 (*continued*)

Credit arrangements of eastern European countries from December 1955 to February 1957

Date	Debtor	Creditor	Amount of loan (*Million roubles*)		Period of repayment	Specified purpose	Other facilities
			Total	Free currency			
n. 1957	Eastern Germany	Soviet Union	340	340	Not known	Facilitating German purchase of goods in 1957	
n. 1957	Albania	Bulgaria	Not known	—	—	Industrial development	
n. 1957	Mongolia	Czechoslovakia	9	—	Not known	Building a leather and shoe factory	
n. 1957	Hungary	Eastern Germany	60	—	Not known	Purchase of raw materials, machinery and consumers' goods	
n. 1957	Hungary	Bulgaria	7	—	Not known	Purchase of raw materials	
n. 1957	Hungary	China	200	100	Not known		
b. 1957	Hungary	Poland	40	—	4 years beginning 1 January 1959	Purchase of coal, coke, chemical materials and timber	
b. 1957	Hungary	Soviet Union	1000	200	Not known	Purchase of coal, mineral oil, mining, timber, rubber, bread grain, fodder	
b. 1957	Bulgaria	Soviet Union	200	—	Not known	Industrial development	
b. 1957	Czechoslovakia	Soviet Union	Not known	—	Not known	Extension of uranium mines	

Sources: *Vneshnyaya Torgovlya*, Nos. 1 and 10, 1956; *Commercial Information*, No. 4, 1956; *Pravda*, 8 January and 21 February 1957; *Agerpress*, Nos. 29-30, December 1956; *Rabotnichesko Delo*, 31 January 1957; *Deutsche Finanzwirtschaft*, No. 2, 1957; *Rudé Právo*, 1 and 11 February 1957, *Népszabadság*, 9 and January and 5 and 16 February 1957, and other press reports.

[a] Official Yugoslav statements have recently indicated that this credit may not be operative.

and fuels from the Soviet Union are also being arranged for delivery from the beginning of 1957 onwards. Rumania will get larger amounts of some basic raw materials enabling it to utilize to the full the capacity of its steel industry. Czechoslovakia is to take greatly increased amounts of copper, aluminium, tin, lead and crude oil, and Poland has been promised larger amounts of ores and some badly needed metals.

Secondly, the payments position of Poland, eastern Germany and Rumania *vis-à-vis* the Soviet Union has been very much improved by the economic agreements in late 1956, as can be seen from the list of credit arrangements given in Table 20. These arrangements include new credits, the cancelling of some old debts and the postponement of repayments on others.

Thirdly, the Soviet Union has recently placed additional orders in practically all eastern European countries, not only for equipment, but also for consumers' goods. This will help to improve the utilization of capacities in some industries, notably in Czechoslovakia and eastern Germany which had hitherto suffered from insufficient export outlets. A recent Soviet-Bulgarian agreement provides for improved trade in textiles: the Soviet Union will deliver raw materials to be processed in Bulgarian factories and returned in the form of finished goods to the Soviet Union.

These new developments all point to a considerable increase in 1957 in total trade between the Soviet Union and eastern European countries.[51] It also seems likely that the recent tendency for the Soviet Union to have an import surplus in this trade will be reversed.

Trade with Western Europe

Table 21 shows that both the eastern European countries and the Soviet Union expanded their trade with western Europe considerably in 1956. This was all the more remarkable in view of the big increase which had already taken place in 1955.

While the various eastern countries, apart from Hungary, shared fairly equally in the increase, the picture was more varied on the western side. By far the larger part of the increment was accounted for by

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[51] The Soviet 1957 plan envisages a 13 per cent increase in trade with the people's democracies. The east German authorities expect an increase by 30 per cent in trade with the Soviet Union.

TABLE 21

Trade of eastern European countries and the Soviet Union with western Europe

Millions of current dollars; exports, c.i.f., imports, f.o.b.

	Exports			Imports		
	1955 Jan.–Sept.	*1956* Jan.–Sept.	Percentage increase	*1955* Jan.–Sept.	*1956* Jan.–Sept.	Percentage increase
Trade with :						
Western Germany [a]	170	261	54	158	281	78
Austria	55	68	24	43	81	88
Yugoslavia	16	62	288	18	49	172
Scandinavian countries	264	310	17	234	247	6
United Kingdom	198	205	4	70	86	23
France	60	81	35	100	88	−12
Other countries	262	273	4	230	243	6
Total western Europe [a]	1 025	1 260	23	853	1 075	26
of which :						
Soviet Union	353	435	23	263	368	40
Czechoslovakia	149	178	19	96	126	31
Poland	189	244	29	144	192	33
Eastern Germany [a]	182	213	17	167	221	32
Hungary	63	98	56	125	105	−16

Sources : Trade statistics of western European countries.

[a] Including trade between eastern and western Germany.

only three countries—western Germany, Austria and Yugoslavia. For most other western European countries, east-west trade rose little, if at all. France was a notable exception with a considerable increase in imports and an absolute decline in exports, similar to the movement of total French trade in 1956.

The three western European countries which showed a particularly rapid increase were also those where in the preceding years political considerations had played an especially important part in limiting normal trade with the east. Yugoslavia's trade with the east increased several-fold, but by far the largest increase in absolute terms was registered by western Germany, whose exports and imports for the whole of 1956 were 141 and 104 million dollars [52] above the level of the preceding year.

Trade with Overseas Countries

The trade of eastern European countries with overseas areas has been expanding very considerably during the last few years. From 1954 to 1955 the increase was nearly 20 per cent, and a similar increase took place from 1955 to 1956, as far as can be judged from trade returns for the first three quarters of the year (see Table 22). Considerable efforts are being made, especially in Czechoslovakia and eastern Germany, to develop this trade which seems to offer a solution to the dual problem of inadequate export outlets for equipment and shortages of raw materials.

Trade between eastern European and overseas countries continues to be based largely on bilateral trade agreements, and imports and exports have therefore tended to increase *pari passu.* By contrast, the trade of the Soviet Union with overseas areas, apart from some Latin American countries, is based mainly on payment in free currencies, so that the necessity for bilateral balancing of trade does not arise, and imports and exports have shown somewhat divergent trends. Exports from the Soviet Union to overseas countries have increased fairly regularly, by more than 25 per cent annually, and in 1956 were more than double the 1953 volume. On the other hand, Soviet imports from overseas vary from year to year with variations in import requirements for raw materials. In 1956, they increased somewhat as compared with the 1955 level, owing largely to increased purchases of Canadian grain and Malayan rubber, but the total value of imports from overseas remained considerably below the level of 1954, when large amounts of meat and wool were bought in Argentina and Australia.

The 1956 increase in overseas exports was highly concentrated on a few major trade flows—Czechoslovakia, eastern Germany and the Soviet Union on the exporting side, and Egypt, India and Brazil on the importing side.

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[52] These figures include the increase in trade between western and eastern Germany.

TABLE 22

Trade of eastern European countries and the Soviet Union with selected overseas countries

Millions of current dollars ; exports c.i.f.,[a] *imports f.o.b.*

Country of destination for exports and of origin for imports	Eastern European countries				Soviet Union				Share of eastern Europe and the Soviet Union in total exports of overseas trade partner
	Exports		Imports		Exports		Imports		
	1955	1956 [b]	1955	1956 [b]	1955	1956 [b]	1955	1956 [b]	1956
Egypt	28.1	46.0	61.4	105.0	6.6	14.4	20.2	17.1	28
Iran	5.4	7.8	3.6	..	25.4	17.7	18.6	..	15 [c]
Argentina	65.2	..	52.2	..	32.2	30.4	29.7	14.1	9 [c]
Cuba	1.3	..	0.6	2.6	—	—	36.4	16.6	6 [c]
Brazil	38.2	50.0	41.4	44.0	—	—	0.7	—	3
Malaya and Singapore	4.1	5.7	11.4	23.1	—	0.1	0.4	15.3	3
New Zealand	1.0	..	12.3	..	0.1	0.1	6.7	6.1	3
India	9.1	17.6	3.4	9.3	6.0	29.7	5.2	16.7	2
Indonesia	30.3	16.2	27.5	14.4	0.2	0.2	—	—	2
Gold Coast	5.0	4.5	—	—	—	—	11.5	6.2	2
Australia	8.0	7.9	30.4	29.7	2.0	1.5	0.3	—	2
Canada	4.2	8.3	8.0	45.0	0.6	1.1	2.7	29.9	1
Japan	5.6	8.0	9.5	5.6	3.3	2.1	2.3	1.0	0.3
United States	38.5	42.0	7.0	7.6	16.9	22.1	0.2	4.3	0.1
Total of countries listed	244.0	..	268.7	..	93.3	119.4	134.9	..	..
Share of countries listed in total trade of eastern Europe and the Soviet Union with overseas countries	81	..	86	..	97	..	78	..	..

Sources : Direction of International Trade, the *Commonwealth and the Sterling Area Statistical Abstract*, and national trade statistics of overseas countries.

[a] Except for exports to Australia, Canada, Cuba, New Zealand and the United States, which are reported f.o.b.

[b] Yearly rate of figures for the first *nine* months (except for imports from Canada, Cuba and New Zealand, which include 10 months, and exports to Japan, Brazil and the Gold Coast, which include 8 months.)

[c] 1955.

An important new development in international finance began in the latter half of 1956 with the granting of loans from the Soviet Union to some overseas countries (see Table 20). This may be expected to result in a further increase of Soviet exports in 1957. There have also been frequent reports in recent months of contracts for delivery of complete industrial plants from the Soviet Union and eastern European countries.

Even after the increases in recent years, trade with overseas areas is still of relatively small importance in the foreign trade of the eastern countries. In 1956 it probably accounted for some 6 to 8 per cent of their total foreign trade and some 30 per cent of their trade with the western trading region. For the overseas trade partners the relative importance of this trade is even smaller and rarely amounts to more than 3 per cent. Egypt is the one major exception: in 1956, almost 30 per cent of total Egyptian exports, mainly cotton, were sold to eastern Europe and the Soviet Union.

4. CURRENT ISSUES OF AGRICULTURAL POLICY

Marketing of Agricultural Produce in Eastern Europe

In several eastern European countries far-reaching changes were introduced in 1956 in the marketing systems for agricultural produce. On the whole, these changes continued the trends, apparent since 1953, towards a decrease or elimination of the gap between prices for compulsory deliveries and those for above-quota sales and towards a decline in the quotas for compulsory deliveries.

Under the systems existing up to 1953 the bulk of the marketable surpluses of basic foods and of the main animal products was subject to compulsory delivery at low prices. Another part was sold at officially fixed procurement prices, and what remained could be sold on the free market. Some foodstuffs and most industrial crops were delivered at relatively high contract prices.

Recent Policy Changes

In the first phase of the new policies—from 1953 to 1954—the general tendency was both to decrease the quotas for and to raise the prices of compulsory deliveries. In some countries, the amounts to be sold under contractual deliveries were also reduced. The effect, as intended, was considerably to increase rural incomes and to give an incentive for better performance. In a second phase, beginning in 1954, the official procurement prices and contractual prices were brought nearer to free market prices.

Developments in 1956, especially in the last months of the year, marked a further approach to a unified price system. In Czechoslovakia and eastern Germany, these changes were gradual and there was no major modification in the institutional framework. These two countries have a considerable food deficit, and the supply of bread grain continues to be a crucial problem for economic policy; in addition, they have a relatively efficient administrative machinery for handling a system of multiple prices and quantitatively fixed deliveries.

In Czechoslovakia, the most recent change, effective from 1 January 1957, further reduced the gap between prices for State purchases and compulsory deliveries. As can be seen from the figures below, the gap between the price levels for grain was narrowed by a decline in the procurement price.[53] This was motivated by the considerable increase in peasant incomes since 1953 and the good 1956 harvest.[54]

Official Prices for Wheat and Beef in Czechoslovakia
(Kčs. per kilogramme)

	From 1.VI.1953	*From 1.IX.1953*	*From 1.IV.1954*	*From 1.I.1957*
Wheat				
Compulsory deliveries .	0.82	1.02	1.02	1.02
State purchases . . .	2.82	2.82	2.45	2.12
Price ratio	*3.4*	*2.8*	*2.4*	*2.1*
Beef (live weight)				
Compulsory deliveries .	4.80	6.40	7.10	8.50
State purchases . . .	9.60	11.20	11.20	12.60
Price ratio	*2.0*	*1.8*	*1.6*	*1.5*

Source : Ůředni List, passim.

In eastern Germany, the gap between the two price levels had been narrowed early in 1956 by simultaneous reductions of the higher prices and increases of the lower ones. The motivation appears to have been the desire on the one hand to reduce the scope for haphazard differences in the income of individual farmers and on the other hand to prevent an above-average harvest (as anticipated at that time) from being accompanied by higher average proceeds per unit.[55]

In Poland, only the main products (grain, potatoes, meat and milk) were subject to compulsory deliveries. Peasant dissatisfaction with the system has been strongly voiced in recent months, and the question of whether the system could and should be abolished has been under lively discussion. A joint statement by the Workers' and Peasants' parties issued early in January 1957 gave a provisional answer: the total amount of grain from the 1957 harvest to be delivered under the compulsory scheme will be cut by one-third and the price per quintal will be doubled. This will reduce the ratio of free market prices to prices for compulsory deliveries from 4 : 1 to 2 : 1. For very small farms (below 2 hectares of arable land) compulsory deliveries are to be abolished altogether and, on the other hand, the progression of the quotas for medium and large farms is to be reduced. Compulsory deliveries of milk were abolished as from 1 January 1957. These measures aim at eliminating irrationalities and exaggerations in the marketing system which tended to act as a disincentive to production. Similarly, the increase in prices for industrial goods needed by the rural population is intended to eliminate black marketing and thus secure a more rational distribution of scarce supplies. It is not clear whether or not the net effect of these changes in prices paid and received will be to improve further the peasants' terms of trade with the urban community.

In Hungary, the insurrection caused a temporary breakdown of the marketing system for agricultural products and on 25 October compulsory deliveries were officially abolished. According to official announcements, the system of state trading is to be reformed. Procurements are to be maintained in the form of free sales to the State at fixed prices, and the system of contractual production and deliveries is to be extended.

In Rumania, there has been a gradual decline since 1953 in the share of output under compulsory delivery and a corresponding increase in the share sold under contracts and at official procurement prices. Following the events in Hungary and Poland, more sweeping measures were undertaken. Compulsory deliveries for grain, oilseeds, pulses, potatoes and milk were abolished as from 1 January 1957. Farms with less than one hectare, and the private plots of members of co-operative farms, were exempted also from compulsory deliveries of meat. For other farms, the price of meat delivered under the compulsory scheme is being raised and the complete suppression of compulsory meat (and wool) deliveries is planned if contract sales give satisfactory results.

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[53] For meat, the price gap also declined somewhat, but this resulted from increases in both procurement prices and prices for compulsory deliveries.

[54] Money incomes of peasants increased by 64 per cent between 1953 and 1956, while agricultural production rose by only 16 per cent. The impact of double pricing was especially important for animal products. For instance, the weighted average price paid for beef more than doubled from 1953 to 1956 while prices for compulsory deliveries and for State purchases rose by no more than 50 and 16 per cent respectively.

[55] In actual fact, output declined and consequently the average price was higher than it would have been with the previous prices, since compulsory deliveries for which the price had been raised, came to make up a higher share of total sales.

Both in Rumania and Bulgaria, the official criticism of the compulsory delivery system was that it often led to an undesirable reduction of the sown area. This aspect was considered especially important in Bulgaria, where compulsory deliveries of grain in mountainous regions were abolished, as were compulsory deliveries from the private plots of members of co-operative farms. Furthermore, delivery quotas for co-operative farms with little arable land per member will be reduced, and for private farms the wool quotas will no longer be progressive on the number of sheep; indeed, production is to be encouraged by lower wool quotas for newly acquired sheep, in private as well as in co-operative farms. In the summer of 1956 prices for compulsory deliveries were raised considerably, and later in the year compulsory deliveries were abolished for potatoes, fruit and milk. At the same time the state purchase prices were raised.

The Reappraisal of Compulsory Deliveries

The preceding description has shown that policies with regard to compulsory deliveries, and the marketing of agricultural produce generally, are almost everywhere coming up for reconsideration. It is also seen that the solutions, sometimes of an experimental and provisional character, vary considerably from one country to the other.

The criticism levelled against the hitherto existing systems of compulsory delivery can be summarized in five points. First, the delivery quotas were often so high that little possibility was left for the farm or co-operative to adjust its pattern of output to local conditions. This point is of particular importance now that the tendency is to give up the prescription of sowing patterns for the individual farming enterprises. Secondly, it was often pointed out that delivery quotas were so steeply progressive on the size of the farm as to endanger the viability of medium and larger private farms and to lead to the abandonment of land. As will be seen below, policies with regard to collectivization and land ownership are being revised in several countries, and there is a new tendency to accept the medium and larger farms as a more continuing element in the agrarian structure. It was only to be expected that this change in attitude should be reflected also in marketing policies.[56]

Thirdly, it was alleged in some countries, and especially in eastern Germany, that high quotas, together with a wide discrepancy between prices for the quota and for above-quota surpluses resulted in exceptionally high earnings for a small group of farmers which, by merit or by sheer accident, had a considerable surplus to sell. In the fourth place, compulsory delivery schemes were applied even to dwarf farms which served only to swell administrative costs. Finally, in the absence of frequent adjustments of quotas or delivery prices, or both, the dual or triple price systems tended to produce the illogical result that average proceeds per unit of output were highest in years of good harvest.

All these criticisms have this in common, that they are concerned with exaggerations and irrationalities in the detailed arrangement of delivery systems rather than with inherent weaknesses in them. It therefore continues to be an open question whether, and in what circumstances, the method of compulsory deliveries is preferable to other forms of taxing agricultural income. Without attempting to give an answer to this question—an answer which in any case could not be a simple yes or no—it may be pointed out that compulsory delivery systems have at least some strong points to recommend them. First, the system has the same advantage as a good land tax of being in effect a form of progressive remuneration and thus a suitable way of taxing enterprises which need a spur to efficiency. In addition, this kind of tax has the advantage of not being payable in money. It is always a difficult task to levy money taxes effectively on relatively small farms which keep no accounts and which can put up resistance against taxation by entrenching themselves in increased autarky. It is therefore one of the advantages of an economic system where all important commodities pass through the channels of state trading that taxation can be arranged without the roundabout method of letting people earn a money income which is then reduced by taxation.

Obviously, the choice between taxes in money or in the form of compulsory deliveries depends not on general considerations only, but on the administrative set-up and the structure of agriculture in any given country. But if the choice is in favour of continuing the delivery system, experience seems to suggest that a combination of low quotas with low (or even zero) prices is preferable to high quotas with more favourable prices. This would make the compulsory delivery clearly appear as what in fact it is in an economy without acute shortages—a land tax paid in kind.

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[56] The most recent change in the east German marketing system is characteristic in this respect. The prices for compulsory deliveries of cattle are now almost twice as high as in 1955 and have a fairly normal relationship to the price for pork. At the same time, 1 kg. live weight of cattle was made equivalent to 1 kg. of pig for purposes of accounting compulsory deliveries, while previously the ratio was 1.3 : 1. These measures remove the discrimination against the producers of beef—i.e., mainly medium and relatively large farms.

TABLE 23

The co-operative sector in eastern European agriculture

Country	Year and month	Co-operative farms			
		Number	Incorporated farms *(Thousands)*	Agricultural land	
				Thousands of hectares	*Percentage of total*
Albania [a]	1956, 1 Jan.	318	15	. .	15 [b]
	1956, 1 May	694	29	. .	26 [b]
	1957, 1 Jan.	881	37	. .	31 [b]
Bulgaria [c]	1956, 1 Jan.	2 735	591	2 582	63
	1957, 1 Jan.	3 100	911	3 521	78
Czechoslovakia [a]	1956, 1 Jan.	6 795	211	1 947	26
	1956, 1 Oct.	7 983	241	2 221	30
	1957, 1 Jan.	8 016	. .	2 237	30
Eastern Germany	1956, 1 Apr.	6 157	207	1 386	21.4
	1956, 1 July	6 273	219	1 463	22.6
	1956, 1 Oct.	6 287	221	1 488	23.0
	1957, 1 Jan.	6 281	. .	1 502	23.2
Hungary [c]	1956, 1 July	5 140	. .	1 150	21
	1956, 15 Oct.	5 191	. .	1 350	25
	1957, 15 Jan.	2 700	. .	670	12
Poland	1956, 1 Jan.	9 963	200	1 800	8.8
	1956, 1 June	10 616	211	2 000	9.8
	1957, 1 Jan.	2–3 000	. .	. .	. .
Rumania [c]	1956, 1 Jan.	6 325	382	1 178	12.1
	1956, 1 July	9 436	577	. .	. .
	1957, 1 Jan.	10 709	684	1 696	17.5

Sources: Table 20, *Economic Bulletin for Europe*, Vol. 8, No. 2, and: **Albania**: *Zeri i Popullit*, 8 January 1957. **Bulgaria**: *Otechestven Front*, 27 January 1957. **Czechoslovakia**: *Statistické Zprávy*, No. 2, 1956 and *Rudé Právo*, 31 January 1957. **Eastern Germany**: *Statistische Praxis*, No. 1, 1957. **Hungary**: *Népszabadság*, 8 February 1957; **Poland**: *Trybuna Ludu*, 20 November and 28 December 1956.

[a] Advanced type co-operative farms.

[b] The definition of these percentages is uncertain.

[c] Figures in the last two columns refer to arable land.

Collectivization Policy in Eastern Europe

The Recent Collectivization Drive

Up to the middle of 1956, the trends of policy with regard to the farm structure were fairly similar in all the countries of eastern Europe. The new drive for collectivization which had been announced at the beginning of 1955 continued unabated, and the results were impressive in some countries (see Table 23). The policy of accelerated collectivization was in some cases supported by new rules of admission or by the creation of new intermediate types of co-operatives. The aim of pushing ahead with collectivization was also reflected in the new long-term plans drawn up in the beginning of 1956 (see Chapter II, page 10).

In Bulgaria, the share of co-operative farms in the total agricultural area had remained at slightly more than 60 per cent from 1952 to 1955. It then rose to no less than 78 per cent by the end of 1956, and private holdings are now found almost exclusively in mountainous and semi-mountainous regions. In connexion with the recent collectivization drive practically all restrictions governing admission to co-operative farms were lifted, especially for peasants with relatively large holdings. The rate of collectivization accelerated also in Rumania; and this was closely related to the shift towards less integrated types of co-operation, where the stress is laid on the common use of means of production rather than collective ownership of land.

In eastern Germany, less land was brought under co-operative management in 1956 than in 1955. Moreover, only a small part of the 200,000 hectares of land added to co-operative farms in 1956 was brought in by peasants: by far the larger part was abandoned land handed over by the State to co-operative farms. The reluctance of eastern German farmers to join co-operatives is also illustrated by the fact that more than half the total number of co-operative farm members did not possess any land before joining the co-operative. Practically all the "reserve land" has by now been transferred to co-operatives, and it can therefore be expected that in the near future the number of co-operative farms, at least of the highly integrated type, will grow only slowly.[57] Much emphasis is now being laid on the creation of associations of a less integrated type, limited to the pooling of work and to MTS contracts.

In Czechoslovakia, by mid-1956 the collective farm area surpassed the former peak reached in 1953 and the official policy continues to be in favour of a further rapid increase in co-operative farming. It is expected that the third congress of co-operative farmers, to be held in March 1957, will enact important changes in the statutes of collective farms giving members a freer hand in farm management. It is also intended to give admission, although with some restrictions, to former *kulaks*.

The Contrast in Poland and Hungary

The cessation of pressure in the countryside resulted in the disbanding of three-quarters of the existing co-operative farms in Poland.[57a] In Hungary, the renewed collectivization drive in the first half of 1956 resulted in serious tension in the countryside. The pressure by the authorities was relaxed somewhat in July, but before the effects could have been felt, the October events swept away about half of the existing co-operatives.

Reports on the disbanding of co-operatives must, however, be interpreted with caution. It is by no means certain that the formal dissolution of a co-operative farm puts an end to its existence as a productive unit. When a newly created co-operative, which had existed on paper more than in reality, is dissolved it may be possible for the members to revert immediately to the *status quo ante*. But the dismantling of an old-established collective farm must be legally a complicated, and economically a wasteful process. It is known that at least in some cases members of formally dissolved co-operatives have decided to continue common use of the assets of the co-operative. Indeed, the act reported as a dissolution of a co-operative may in many cases turn out rather to have been a thorough change in management and a refusal to comply with the model statutes hitherto imposed.[58]

However this may be, the recent events have radically changed the pre-conditions for agricultural policy in Poland and Hungary. Hitherto, the policy, in these as well as in other eastern European countries, was based on the prospect that all, or the overwhelming part of, agriculture would come into the socialized sector within a relatively short span of years. Within this perspective, it was logical to abstain from measures which could have made private farms more viable. For instance, the traditional farmers' associations disappeared, and with them such stimulus for progress as they used to channel to the farmers. Little, if anything, was done to consolidate farms consisting of many dispersed plots, since collectivization was supposed to solve this serious problem more easily.

Probably the most important drawback of this policy towards private agriculture—from the point of view of efficiency—was the effect on the size structure of farms. Parallel to the increase in the area belonging to the socialized sector there was a tendency towards further fractioning into small units in the private sector, owing to restrictions on the enlargement of small farms and discriminatory measures against the still existing farms of somewhat larger size. Examples of this were mentioned in the previous section.

The extent to which small-scale farms dominate in eastern European agriculture can be gauged from Table 24. Although at the dates to which the figures refer [59] large farms in the socialized sector had already taken 23 and 33 per cent of the land in Poland and Hungary, in both countries more than half the land was still divided between farms of less than 10 hectares —i.e., well below what can reasonably be regarded as the optimum size for family farms.

The significance of the events in Poland and Hungary in 1956 is that they have compelled governments to reappraise some essential features of agricultural policy. Once it becomes clear that the collectivization of agriculture as a whole is for a more distant future, it is impossible to continue a policy which essentially consists in letting private farms vegetate. Governments are then faced with a serious dilemma: on the one hand it appears indispensable to stimulate production in the private sector, not least by increasing

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[57] This assumes that there will be no further abandonment of land by emigrating peasant families.

[57a] The Chairman of the Council of Co-operative Farms, Mr. Jaworski, has attributed this landslide to three main features of collectivization policy. In the first place, co-operatives were created in a general atmosphere of coercion and illegality. Secondly, the establishment of the greatest number of co-operative farms was the only aim, disregarding basic economic conditions. Thirdly, while resources were dispersed lavishly to inefficient co-operative farms in order to assure their survival, the well-working co-operative farms were overburdened by taxes and deliveries almost as the private farmers were. *Trybuna Ludu*, 20 November 1956.

[58] The Polish plan fulfilment report for the year 1956 states that about one-fourth of the total number of co-operatives continue unchanged. However, "a part of the remaining three-fourths of the co-operatives continue their work on the basis of statutes which have been changed on the initiative of the members". *Zycie Warszawy*, 19 February 1957.

[59] The figures have a tendency to exaggerate the fractioning of land ownership, as peasants tend to escape progressive taxation and other discrimination by nominally transferring land to parents. This, however, does not affect the argument.

TABLE 24

Distribution of agricultural area by size of farm

Percentages

Country	Private farms				Socialist sector
	Below 1.7 ha.	*1.7-8.6 ha.*	*8.6-14 ha.*	*14 ha. and over*	
Hungary [a] . . .	9.1	48.5	8.1	1.8	32.7
	Below 2 ha.	*2-10 ha.*	*10-14 ha.*		
Poland [b]	4.3	50.9	11.7	10.3	22.5
Czechoslovakia [c] .	7.6	38.9 [d]		5.6	47.9 [e]
	Below 5 ha.	*5-10 ha.*	*10 ha. and over*		
Eastern Germany [c] . .	14.7	24.1	33.9		27.3

Sources : Statistical yearbooks; *Nová Mysl*, No. 10, 1956, p. 1021, and *Rudé Právo*, 6 October 1956.

[a] Arable land, mid-1955.

[b] End 1954.

[c] End 1955.

[d] Of which: 12.6 per cent from 2 to 5 ha.

[e] Including abandoned land (more than 5 per cent of total).

the size of farms; and on the other hand such a policy, if successful, might further postpone the day when socialist forms of production can be introduced in agriculture.

The New Agricultural Policy in Poland

In Poland, a new agricultural policy has already been formulated, at least in its broad outline.[60] It is in several respects a departure from the policies hitherto followed in Poland and other countries of eastern Europe, and it may be regarded as a first attempt to find a workable compromise between the short-term exigencies of efficiency and the longer-term goal of a transformation of the countryside on socialist lines.[61] It lays down new rules for taxation, compulsory deliveries and supplies to farmers, all tending to provide incentives for higher output, especially in medium and large farms.[62] But even more interesting are the new measures dealing with the structure and organization of agriculture.

First of all, small farmers are now allowed, and even encouraged, to acquire additional land. The upper limit to land ownership is to be that of the 1947 land reform—that is, 40 to 50 hectares. Settlers in the western territories will be able to increase their holdings up to 15 to 20 hectares by specially advantageous purchases from the State Land Fund, which will also let land—on at least 8-year contracts—to peasants with too small holdings. Even more important is the new start made in promoting settlement in the western territories by peasants from the overcrowded regions of the country. This settlement policy had earlier been abandoned because it tended to create viable private holdings. These measures may have the important effect of increasing the density of population, and thereby the utilization of agricultural resources, in those territories.

Secondly, the directives lay great stress on the promotion of more traditional forms of co-operation and association among private farmers. The general framework for such activities is to be the so-called " agricultural circles ". These seem to be thought of as fully independent and self-governing professional associations of peasants which can take up a wide variety of activities, ranging from the education of farmers and village youth and creation of technical study circles to the distribution, at the local level, of investment funds and means of production, or joint organization of village handicraft. The leading idea seems to be that the suspicion of peasants against joint undertakings can be overcome only gradually through associations with which the peasants can identify themselves, because they have been created by them and remain under their effective control.

As regards the future of producer co-operatives, the directives reaffirm the intention of giving public support, in the form of expert advice and credits, to co-operatives which are established on a sound foundation. The recent dissolution of many co-operatives is taken as a *fait accompli*; rather than suggesting the re-establishment of such co-operatives, the statement merely calls for measures to avoid the waste of indivisible property of disbanded co-operatives such as farm buildings and farm equipment.[63]

Thus, while the goal of transforming agriculture on socialist lines is maintained, the programme is seen to be a long-term one. The intention appears to be to retain only a limited number of genuinely voluntary producer co-operatives and to enable them to become highly efficient and prosperous models of socialist agriculture. The spread of collectivization throughout Polish agriculture seems to be deferred to a future when, on the one hand, investment funds are available to make the transition coincide with a thorough technical transformation and, on the other hand, the groundwork done by " agricultural circles " will have lessened the individualism of peasants.

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[60] The policy is set out in a joint statement of directives by the Central Committee of the United Workers' Party and the Supreme Committee of the United Peasant Party (see *Trybuna Ludu*, 9 January 1957).

[61] ". . . the road to the socialization of agricultural production leads through diverse forms of co-operative production accompanied by a simultaneous consolidation of peasant farms . . ." (*ibid.*)

[62] These measures were mentioned in the preceding section.

[63] The party organizations should " help peasants who have decided to dissolve agricultural co-operatives in finding such forms of farming as would allow the best possible use of the public property not subject to division. It would be a great mistake to waste public property, which is the product of great expense and hard work." (*Trybuna Ludu, loc. cit.*)

Hungary

It is not clear as yet what attitude will be taken to the questions of agricultural structure in Hungary now that peasant dissatisfaction with the co-operatives has come out in the open. The new government has declared its intention to restore traditional forms of agricultural co-operation, to repair " the most striking breaches of law " committed against small and medium farmers and fully to respect the principles of voluntary membership of co-operative farms. But the government has also declared that it will guarantee the integrity of " the consolidated land of the co-operatives ", which seems to limit considerably the possibility for a peasant to withdraw his land from it. Changes in land tenure during and after the insurrection are regarded as valid only if legal formalities and prescriptions of statutes of co-operatives have been observed.

On the other hand, a definite step appears to have been taken towards the freeing of trade in land. Peasants can henceforth add to their holdings by free purchase of up to three hectares of land, subject to a maximum family farm size of some 12 to 15 hectares, and private leasing of land has also been permitted. This should allow " reserve land " to be brought under cultivation and give a great number of small farmers an opportunity to enlarge their holdings.

Czechoslovakia and Eastern Germany

As was seen, very small private farms with their latent manpower reserves are numerous also in Czechoslovakia and eastern Germany (Table 24). This contrasts with the over-all manpower shortage in agriculture, mainly felt in the socialized sector.[64] However, the mobilization of these reserves is difficult within the framework of the present system, because young people increasingly refuse to work in agriculture, just as in many western European countries.[65] Those who nevertheless remain in agriculture are retained by the family ties which bind them to the small individual farm rather than being attracted to the socialized sector with its large-scale but insufficiently mechanized enterprises.

The Question of Farm Size in the Soviet Union

It was seen in the preceding section that the eastern European countries, in varying forms and varying degrees, are faced with a serious dilemma in their agricultural policy—on the one hand, the necessity to modernize production in agriculture and, on the other hand, the peasant community's preference for the traditional ways of individual small-scale farming. Indeed, despite the differences in social structure, western European countries face the same basic conflict between the dictates of efficiency and the inherited agrarian structure.

In the Soviet Union, although 95 per cent of the sown area is cultivated in large units, organized as collective or state farms, the question of small-scale farming remains a major issue of agricultural policy. In the past three years a number of measures have been introduced dealing with this question, the most recent, and perhaps the most significant, being the revision of the Model Collective Farm Statute in 1956. These recent measures need to be seen in the perspective of a review of past policies and the present farm structure in the Soviet Union.

As shown in Table 25, the frequency distribution by size of Soviet farms has a highly bimodal shape. At one pole there are the private plots of the collective farmers, some twenty million separate parcels of about a quarter-hectare of sown area apiece; at the other pole are 92,000 collective and state farms with an average area sown of 1,900 hectares.[66] Between these two extremes there are a number of medium farms run by state enterprises—chiefly as market gardens for their staff canteens—but they account for no more than 2 per cent of the country's sown area.

This farm structure implies a very unequal distribution of the available labour over the agricultural area, with a consequent loss in output per unit of labour input in comparison with that derivable from more equal distribution. This loss is to some extent mitigated by the fact that the cropping pattern shows a concentration of labour-intensive products on the private plots: in 1955, 64 per cent of their sown area was planted to vegetables.[67] Nevertheless, there must be an immense discrepancy in the marginal output of labour between the socialized area where some

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[64] In Czechoslovakia, by 1955, the socialist sector had some 16 persons (including family helpers) engaged in agriculture per 100 hectares of agricultural land, while in the private sector this number was around 34. (Both figures exclude half a million hectares of unutilized " reserve land ".)

[65] In the Czech lands only 2.5 per cent of co-operative farm members were aged 16 to 19 years. In Slovakia the corresponding figure was 6.8 per cent.

[66] The average size of socialized farms was much increased by the policy of amalgamation, carried out in the years 1950–1953, which raised the average area sown per collective farm from 967 ha in 1950 to 1,549 ha in 1954, and per state farm from 2,585 ha to 3,419 ha.

[67] The area under vegetables in private plots of collective farmers, together with that of workers' allotments—as in all countries almost wholly devoted to this crop—made up 45 per cent of the total vegetable area.

TABLE 25

Farm size in the Soviet Union in 1955

Type of farm	Average size *(Ha. of sown area)*	Thousand farms	Total sown area *(Millions of ha.)*	Cattle per 100 ha. sown
Collective and state farms	Over 5 000	6	174.90	20
	2 001–5 000	21		
	1 001–2 000	26		
	501–1 000	22		
	Below 501	17		
Subsidiary farms of state enterprises	29	120	3.53	25
Individual peasant holdings	0.4	100	0.04	298
Collective farmers' plots	0.3	19 700	5.79	399
TOTAL	..	20 000	184.26 [a]	36 [a]

Sources : See Appendix B.

[a] In addition, there are 1.59 million ha., with 481 cattle per 100 ha., of workers' allotments; holders of allotments, some of which are held jointly, number about 20 million.

20 workers[68] (both male and female) were occupied per 100 hectares of sown land and the 4 per cent of the area made up by private plots to the cultivation of which some 30 million persons (five persons for each hectare) devote more or less of their labour and attention.[69] The contrast is brought out most strikingly by the fact that exactly one-half of the total numbers of cows and one-third of the total of pigs were privately owned by collective farmers at the 1955 census.[70] No data are available to compare output from private plots with that of the socialized farm sector, but it can be seen from the following table that private suppliers (i.e., overwhelmingly collective farm members in their private capacity) accounted in 1955 for about one-seventh of total food sales.[71] In addition, the private plots supply a large part of the food consumed by the farm members and their families.[72]

Percentage Distribution at Current Prices of Retail Food Sales by Purveyors

	1940	*1950*	*1955*
State shops	61.5	63.3	63.8
Co-operative shops	18.3	18.6	21.5 [a]
Direct sales			
by co-operative farms	3.0	2.4	1.3
by individuals	17.2	15.7	13.4

Sources: Sovetskaya Torgovlya, Statistichesky sbornik, 1956, p. 19, and *Sovetskaya Torgovlya*, No. 11, 1956.

[a] Including commission sales on behalf of individuals (0.3 per cent) and of collective farms (0.6 per cent).

Policies towards Private Plots

The Soviet authorities have, since collectivization, been continuingly exercised by the maldistribution of manpower resources inherent in this farm structure and a variety of measures have been taken aiming at the redistribution of labour inputs between the two sectors. For many years attempts were made to limit the production of small holdings by the imposition of compulsory delivery quotas at very low prices. Heavy progressive taxes were levied upon private agricultural income.[73] Other fiscal measures were to restrict outlets on farm markets by taxes and other means,[74] and—notably in 1951 and 1952—to tax particularly sharply farm households comprising persons working neither for a co-operative nor for the State. As a result, the proportion of cow-owning peasant households fell from 69 per cent in 1938 [75] to 55 per cent in 1953.

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[68] The figure as calculated by Academician V. Nemchinov (*Planovoe Khozyaistvo*, No. 4, 1955, p. 68) related to all arable land, but has been converted to a sown area basis on the data shown in *Narodnoe Khozyaistvo SSSR*, pp. 104, 106.

[69] Area data are taken from *Narodnoe Khozyaistvo SSSR*, pp. 104 and 108; for details of calculations on manpower see sources to Appendix Table XXIII.

[70] These shares are based on the total number in agriculture proper, i.e., excluding animals owned by wage-earners. For the distribution of livestock by the various kinds of farms see Table 4.

[71] The figure varies widely from place to place. It was, for instance, 8 per cent in Moscow and Leningrad and 60 per cent in Odessa (600,000 inhabitants).

[72] In considering these figures it must be remembered that the animals held on the private plots are largely fed by the produce of the collective lands. Otherwise, it would be impossible for such a large part of total human food consumption to derive from an insignificant proportion of the total area.

[73] Thus, the 1952 tax scales rose from 12 per cent on the lowest incomes (in cash and kind from one to 2,000 roubles) to 48 per cent for each rouble of income above 8,000 roubles —the average income of a wage earner.

[74] For a discussion of the restrictions imposed by the farm market regulations of 1936 and 1939, see *Sovetskaya Torgovlya*, No. 2, 1954, pp. 9–10.

Other policy measures and proposals have aimed at reducing the size of the holdings themselves. The Collective Farm Statutes provide that an able-bodied collective farmer can be deprived of his plot if he or she fails to contribute the minimum number of communal workdays, but forbids any increase in the size of plots on grounds, for example, of increasing size of family. In 1946 a Council for Collective Farm Affairs was given wide powers to investigate illegal seizure of land during the war by private households: it discovered 2,255,000 cases and ordered the cession to collective farms of 4.7 million hectares of land, 140,000 head of livestock and 15 million roubles in cash compensation.[76] Within this line of policy, the most far-reaching proposal—never enforced—was that of 1951 to concentrate farm dwellings into "agro-towns" and to place the private plots, diminished to one-half or one-third of their former area, on the outskirts of the settlement.

The risk was that these policies would discourage production on the private plot—or enhance auto-consumption—without encouraging work on the communal lands. In mid-1953, the stagnation of agricultural production impelled the introduction of new policies.[77] Initially, the measures aimed at encouraging production in both private and communal holdings, but subsequently they rather favoured the latter, and during 1956 some measures positively directed against private husbandry were introduced. Among the 1953 measures in favour of private farming were the reduction of compulsory deliveries from such holdings, the lowering of the agricultural tax to less than half its former level, and tax exemptions to enable farmers to buy a cow.[78]

Other measures in favour of private farming introduced in 1953 were the reduction of the fee for a market trading licence and for occupying a market stall. The Ministry of Trade was instructed to revise its policy in the direction of encouraging private sales,[79] and commission sales for farms and farmers by co-operative shops (which had been forbidden in 1939) were again permitted. Their revival was rapid: from 70 million roubles in 1953, commission sales rose to 4.9 billion roubles in 1955 and to nearly 7 billion roubles in 1956.

But in 1953 measures to improve incentives to communal work also began to be introduced. Substantial increases in procurement prices contributed to a rise in the gross cash receipts of collective farms from 43 and 50 billion roubles in 1952 and 1953 respectively to over 90 billion roubles in 1956. The institution of monthly cash advances to farm members, and the assignment of fields or animals to specific teams,[80] were intended to provide a closer relationship between effort and remuneration. In 1955 the system of central planning in agriculture was abolished, and co-operative farms were left free to choose their sowing pattern and the size and composition of herds, provided only that these were consistent with the attainment of procurement quotas. More recently, a few farms have introduced a guaranteed minimum return to each type of farm work as a direct incentive to communal effort.[81] Steps were also taken to strengthen the legal protection of communal property and labour discipline [82] and to ensure both that farm members contributed a certain minimum of labour to the collective,[83] and that this minimum (established by the Annual General Meeting of the collective farm) should not be less than that set for 1953.[84]

By 1956, however, the Soviet Government felt that the mere improvement of the return to communal tasks was not transferring labour-input away from private holdings sufficiently quickly. A decree of 10 March 1956 recommended collective farms, *inter alia*, to relate the size of the private holding to the labour contribution of the household to communal tasks. It was made clear that any adjustments should involve a reduction, and not an increase, in the total area devoted to private plots. The permitted numbers of privately owned livestock, where these seemed outdated, were recommended for reduction and farms were asked to establish labour-day minima on the basis of the manpower and equipment potential of the farm.[85] The decree stated: "... no expansion of private holdings can be permitted at the expense of collectively held land; rather, on the contrary, the trend should be towards reducing their area because the farming of common land with the improved techniques and intensive mechanization to be found in MTS will be incomparably more profitable and collective farmers in the long run will obtain a considerably higher income ".

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[75] Contemporary territory—i.e., excluding important dairying areas such as the Baltic States. Cows owned by peasants numbered 17.3 million at the end of 1940, 11.8 million in 1950 and 10.5 million in 1952.

[76] N. Anisimov, *Razvitie selskogo khozyaistvo v pervoi poslevoennoi pyatiletke*, 1952, p. 92.

[77] Gross agricultural output in 1952 was lower than in 1950 (and only 10 per cent above 1940 on comparable area) even though the year's weather was notably better.

[78] These measures concerned private farming in the sense of the holdings of collective farmers and state and co-operative workers. Individual peasants continued to pay the agricultural tax at double rate, but the special tax on their sales in farm markets was repealed and the agricultural tax as a whole was reduced by 50 per cent in the areas incorporated since the war, where nearly all the individual peasants were to be found.

[79] Cf. *Sovetskaya Torgovlya*, No. 2, 1954, pp. 3–4. Extra funds were also allotted for the improvement of amenities in the existing 8,000 markets and for the opening, during 1954–56, of 750 new markets (this plan was, however, not fulfilled).

[80] This was recommended with official backing in *Sovetskoe Gosudarstvo i Pravo*, No. 3, 1955, p. 30, and confirmed by decree of 10 March 1956.

[81] Reported from Amur oblast and advocated by G. S. Gaponenko, an official of Gosekonomkomissia at a meeting on farm economics in July 1956 (*Voprosy Ekonomiki*, No. 10, 1956, p. 157). For another quasi-wage system used in Moscow oblast, see *Selskoe Khozyaistvo*, 15 April 1956.

[82] See *Sovetskoe Gosudarstvo i Pravo*, No. 8, 1954, p. 43 and (for a decree imposing fines on damage to communal crops by animals and vehicles) *Izvestia*, 19 January 1955.

[83] The 1953 agricultural tax reform had raised the surtax (from 50 to 75 per cent) payable by a collective-farm household comprising any able-bodied adult who was neither a farm member nor a wage-earner and levied a new surtax on those households in which a farm member failed, without valid reason, to perform the established minimum of workdays.

[84] *Sotsialisticheskoe Selskoe Khozyaistvo*, No. 12, 1954.

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It is obvious that there is no easy and short-term solution to the problem of the private plot in Soviet agriculture. The fundamental difficulty is that work on the plot, though far less productive, appears as more remunerative to the farmer than work in the collective farm. There are narrow limits to the possibilities, by fiscal and other measures, of reducing the remuneration from labour on the private plots, since this is largely for the member's own consumption. It is also difficult, on the basis of present production levels, to raise beyond narrow limits income from work on the communal lands, since this necessarily involves an improvement of the terms of trade of agriculture with the urban community and hence a reduction of the rate of increase, or even an absolute decline, in urban real wages.

Experience from other countries shows that peasants tend to cling to a private plot of land, however small, unless other occupations promise a considerably higher return for their labour. The solution can therefore only be through a cumulative process whereby an increase in the productivity of work on the communal lands provides its own higher remuneration, which in turn attracts labour away from the private plot and results in further increases in communal productivity. The virgin lands campaign can perhaps be seen partly as an attempt to start off such a process through a major initial increase in total agricultural output. It is relevant to mention, in this connexion, that the bulk of the newly cultivated area has been allotted to state farms.

Seen against this background, the fulfilment of the very high agricultural targets of the Sixth Five-Year Plan appears to be of crucial importance for economic development in the Soviet Union. These targets—of which the central feature is a two-thirds increase in grain production over five years—are discussed at some length in the following chapter.

5. New Developments in Social Policy

The XXth Congress of the Communist Party of the Soviet Union held in February 1956 inaugurated important changes in welfare policies. Since the monetary reforms of 1947 and until recently, the benefits of increasing national product have been transferred to the consumer principally in the form of retail price reductions accompanied by relatively insignificant wage adjustments. This helped to maintain, during the period of post-war reconstruction, the spread of incomes which was considered an essential stimulus to higher productivity.

The new approach seems to be based on the view that economic conditions have now improved to such an extent that the principle " To each according to his work " can be somewhat relaxed by giving more attention to the less productive, or even the wholly unproductive, groups of the population. It would nevertheless be wrong to conclude that from now on social policy will be guided exclusively by humanitarian and egalitarian criteria. As will be seen below, the effects on the willingness to work and on the efficiency of work continue, both in the Soviet Union and in the countries of eastern Europe, to be a major determinant of the modalities of social policy.

Measures similar to those announced in the Soviet Union were put into force in a number of eastern European countries in the course of 1956. The scope and emphasis varied from one country to another; but the basic aim common to them all was to improve the lot of the hitherto most neglected groups, such as the lowest-paid categories of workers, old-age pensioners, widows and the disabled. In one important respect the policies pursued in 1956 in eastern Europe differed from those of the Soviet Union. In the latter country, price reductions were virtually halted and improvements during the year in nominal wages were chiefly restricted to the lower-paid workers. In some countries of eastern Europe, on the other hand, the pressure for higher real wages resulted in considerable concessions in the form both of all-round increases in nominal wages and, to a smaller extent, of further price reductions. The present section deals only with those measures which reflect the reassessment of social policies—viz., the establishment of minimum wages and improvements in social security and labour relations.

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[85] The previously recommended criterion had been the production needs of the farm.

TABLE 26

Basic data on minimum wage schemes

Country	Date of introduction	Monthly minimum	Coverage	Per cent of non-farm labour force affected	Total wage increment as per cent of national non-farm wage-bill
Albania	1.I.1957	2 500 leks	All state workers and employees	. .	. .
Bulgaria . . .	1.IV.1957	400 leva [a]	All workers including temporarily unemployed	. .	. .
Hungary . . .	1.VI.1956	650 forints	All non-farm workers [b]	. .	0.5
Poland	1.IV.1956	500 zlotys	All workers and employees in socialized industry	9	0.8
Rumania . . .	1.XI.1956	350–400 lei	Not known	. .	. .
Soviet Union .	1.I.1957	300–350 roubles	All industrial, building and transport workers	16	1.5–1.7
		300 roubles [c]	Workers in other occupations, and junior personnel and watchmen in industry, building and transport		

Sources : Decrees of the countries concerned.

NOTE. — The figures in the last two columns are rough estimates.

[a] 300 leva for apprentices.

[b] Apprentices and certain unskilled building workers are excluded.

[c] 270 roubles in rural areas.

Minimum Wages

As can be seen from Table 26, the introduction of minimum wages was announced in 1956 in all countries of the region, except eastern Germany and Czechoslovakia, where living standards are generally higher, and the spread of wages narrower, than elsewhere. Only in Poland, Hungary and Rumania, however, has the scheme come into operation in the course of 1956. The categories of worker to which the new regulations apply are similar in all countries, but, as far as can be judged in the absence of adequate statistics on income distribution, the proportion of the labour force affected is significantly greater in the Soviet Union [86] than in other countries.

In terms of net additions to the total wage-fund (and the over-all average wage) the benefits are not very impressive, ranging from about one-half of one per cent in Hungary to 1½ per cent in the Soviet Union. Nevertheless, the increments are tangible enough for the low-paid workers who have seen their wages increased, on the average, by 20 to 30 per cent. The new floor for incomes seems in all countries to have been set at a level corresponding to about half the average wage, except in Bulgaria and Albania, where it is considerably higher and amounts to about two-thirds of the average wage.

Policy Issues in Social Security

In the early post-revolutionary years social insurance in the Soviet Union had only one goal: to give security to workers and employees by insuring them against the hazards threatening their ability to earn a living. This strictly social principle was modified and enlarged during the period of the execution of the early five-year plans, when the idea prevailed that the main task of social insurance was " to promote, by all possible means, further increases in the productivity of labour on the basis of the general plan for the industrialization of the country ".[87] As in the case of wage policy, the goal of rapid industrialization was thought to necessitate a change in the social security system away from egalitarianism. This objective was to be achieved by differentiating eligibility for and level of benefits by occupation, by linking benefit rates to the length of employment in general and to the length of stay in a particular occupation, by granting special privileges to shock workers, and by varying the eligibility age for old-age pensions according to the exigencies of the labour market. At the same time, the very lowness of basic benefits, such as sickness benefits and old-age pensions, in relation to the general level of wages, acted as a spur to seek continuing employment.

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[86] According to the decree, the benefit will aggregate 8 billion roubles and represents about a 33-per cent increase in the average wage of affected workers. It may hence be roughly estimated that the rise affects between 8 and 9 million workers.

[87] Resolution of the Central Committee of the Communist Party of the Soviet Union of 28 September 1929.

Seen against this background, the new policies seem to some extent to revert to the ideas underlying the earliest system of social security in the Soviet Union, and also to approach more closely the systems practised in most western European countries. The considerably increased pensions will reduce markedly the gap between the incomes of wage-earners and those of the non-active population. In the Soviet Union, for instance, the total amount spent on old-age pensions is to increase by more than 50 per cent in 1957, and the average full pension will amount to about 60 per cent of the average wage.[88] Moreover, the improvements are relatively greater for those pensioners who have hitherto received the lowest benefits, and, for the first time, an upper limit for pensions has been fixed (at 1,200 roubles per month). Thus there will be less scope for differentiation of pensions for economic motives. The coverage of the old-age and disability pension schemes is also to be widened significantly by granting partial pensions to workers who have not completed the full qualifying period of employment—25 years for men and 20 years for women. Other innovations are the introduction of survivors' pensions based on the number of dependants, and the variation of invalidity pensions according to family size.

Nevertheless, the new measures do not eliminate the principle of reward according to quantity and quality of work. The old-age pension benefits, for instance, vary not only according to the length and type of employment,[89] but also according to the amount of wages received (in principle during the last twelve months preceding the claim), as can be seen from Table 27. Somewhat higher scales are introduced for workers labouring in hard conditions, who also enjoy various other privileges. Similarly, the qualifying periods and the rates of the invalidity pension remain highly differentiated.

These rules indicate an important difference between the Soviet pensions system and the national systems existing in most western European countries, where, for instance, the amount of old-age pension is unaffected by the recipient's income in the years before reaching pensionable age. This difference between the Soviet and the western pensions systems may be regarded as a natural consequence of differences in the wage structures for manual workers: the still very large spread of workers' earnings in the Soviet Union must necessarily have its counterpart in a similar inequality of income among pensioners; otherwise, the transition from work to pension would too often be accompanied by too violent changes—in either direction—in the level of income.

TABLE 27

Monthly amounts of old-age pensions in the Soviet Union

Roubles

Monthly average wage before retirement	Underground or other unhealthy employment		Other employment	
	Per cent of wages	Minimum pension	Per cent of wages	Minimum pension
Below 350 . . .	100	300	100	300
350–500	90	350	85	350
500–600	80	450	75	425
600–800	70	480	65	450
800–1,000	60	560	55	520
Over 1,000 . . .	55	600	50	550

Sources : Official decrees.

The virtual abolition of the rule allowing the accumulation of old-age pensions and earnings seems to indicate a lessened concern about a possible decline in the supply of labour resulting from an improved pensions system. Employed pensioners will now receive a pension of only 150 roubles per month; and, given the increased level of pensions in general, this measure will no doubt induce many old people to quit their employment. The principles governing the payment of sickness benefits, by which the rates depend on the length of employment in one job,[90] remain in force and may constitute some deterrent to excessive labour mobility.

Whereas the rates at which social benefits are paid were raised substantially in 1956 in all the countries of eastern Europe, only Czechoslovakia introduced a new social insurance scheme in which significant policy changes can be discerned.[91] Reorganization of national insurance was deemed necessary not only because " the sums involved in benefits and pensions had been outstripped by the steep rise in nominal wages [since 1948] and were no longer commensurate with the level of earnings ", but also because " in the case of the most highly skilled workers in a wide variety of occupations the benefits did not correspond to their merits as workers ". In general, the system " must be brought into line with economic interests and possibilities ".[92]

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[88] *Sotsialistichesky Trud*, No. 5, 1956.

[89] As mentioned above, reduced pensions will now be paid even if the condition of the full statutory period of employment is not satisfied. Moreover, a 10 per cent premium is added if the total length of employment exceeds 35 years for men and 30 years for women, or if employment lasted for an uninterrupted period of 15 years or more. Lighter conditions are applied to workers in key industries.

[90] Sickness benefits for trade union members range from 50 per cent of earnings for those employed in one job for between six months and three years to 90 per cent for employees of 12 years' standing.

[91] In eastern Germany Mr. Grotewohl announced that a new " socialist retirement law " was under consideration, but could not be introduced before 1958, for economic reasons. The 1957 improvements were therefore chiefly limited to the improvement of the situation of the " old " pensioners.

In contrast with the trend in the Soviet Union, where the low-paid pensioners received more attention, the new rates in Czechoslovakia widen considerably the spread of pensions, as is shown below:

Average gross monthly earnings (Kčs.)	Old scheme		New scheme		*Percentage increase in pension*
	Monthly pension [a] (Kčs.)	*As per cent of earnings*	*Monthly pension* [a] (Kčs.)	*As per cent of earnings*	
600 . . .	358	60	400	67	12
1 000 . . .	450	45	500	50	12
1 400 . . .	552	40	700	50	27
1 800 . . .	644	35	900	50	40

Source : *Rudé Právo*, 11 November, 1956.

[a] For workers in the non-privileged category after 20 years' employment.

For purposes of social insurance all workers and employees are divided into three categories.[93] The creation of privileged groups will, in Mr. Zupka's words " encourage the workers in key industries to remain loyal to their vocation ". This aim is also pursued by grading sickness benefits according to the length of uninterrupted service in a given enterprise, very much as in the Soviet Union. In contrast with the Soviet system, however, and clearly dictated by the need to increase the volume of employment, receipt of pensions is independent of continued gainful employment. Indeed, the pension increases with each year of employment after the retirement age. Finally, the tightening of labour discipline is the objective of another clause which reduces sickness benefits payable during the first three days of illness.

Scope of the New Measures

The common aim of the changes in social security schemes in all the countries of eastern Europe [94] was to improve the economic conditions of the hitherto least favoured sections of the population. Measured against the rates paid in the past, the progress made in the course of 1956 was very considerable, particularly for the poorest beneficiaries who saw their incomes in many cases doubled or even trebled over-night. The scope and coverage of benefits increased [95] and eligibility conditions were often attenuated. In at least three countries—Bulgaria, Czechoslovakia and Rumania—children's allowances were raised to lessen the burden of large families.

In spite of these substantial improvements, the condition of the least privileged group of pensioners remains difficult. This follows from the acceptance of the principle that some balance must be preserved between the earnings of the working population and the incomes of the non-productive sector. All the countries introduced a minimum pension sum, to which the pensioner is entitled on reaching the eligibility age, which in the last column of the following table is compared with the estimated average wage.

	Average pension for all present recipients	*Minimum old-age pensions for fully qualified beneficiaries* [a]	
	(National currencies per month)		Percentage of average net earnings [b]
Bulgaria	. .	280	50
Czechoslovakia	443	400	35
Eastern Germany . . .	127	105	35
Poland	230	260	25
Rumania	. .	250 [c]	45
Soviet Union	. .	300	40

Sources : Relevant decrees of countries concerned.

[a] Fully qualified pensioners in the non-privileged category.

[b] For estimates of average earnings, see *Economic Bulletin for Europe*, Vol. 8, No. 2, p. 38. The figures have been rounded to the nearest five.

[c] In towns (200 lei in the countryside).

Compared with the average level of earnings, the minimum pension ranges from one-fourth in Poland to about one-half in Bulgaria. These percentages are not low in comparison with what is found in most western European countries; but in view of the lower real wages,[96] and the fact that the non-working old-age pensioners are deprived of many privileges reserved for the workers, it is clear that living standards are still very low for many recipients of pensions.

This is especially true for the " established " pensioners who had acquired their pension rights before the advent of post-war schemes and whose benefits are in most countries considerably below those of the new pensioners. Only limited attempts have been made to close the gap between the two categories. In

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[92] Report to the Party committee on National Insurance by Mr. F. Zupka, Chairman of the Central Trade Union Council.

[93] The first and most favoured category comprises persons working underground and professional airmen; the second covers employment in strenuous conditions (miners working on the surface, steel and chemical workers, etc.), and the third all other categories of employment.

[94] There were no recent changes in the 1954 Pension Law in Hungary. A reform of the law was, however, requested by the Trade Union Council, particularly concerning the payment of benefits to workers who have not completed the full qualifying period of employment and to farm workers.

[95] A new departure was made in Bulgaria with a pension scheme for co-operative farmers, based on contributions from the State, the co-operatives and their members. The state contribution, amounting to more than fifty per cent of the cost, is to be financed by increased taxes on some beverages, cigarettes and free-market agricultural transactions. Co-operative farms will pay into the fund 3 per cent of their gross income (after deduction of taxes and seed fund) and personal contributions will amount to one half of one per cent of farmers' personal incomes.

[96] See *Economic Bulletin for Europe*, Vol. 8, No. 2, pp. 36–40.

Eastern Germany, the amount of 1 billion DM available for pension increases in 1957 is to be devoted wholly to the improvement of pensions dating from earlier periods, but Mr. Grotewohl, introducing the amendments to the pension law in the People's Chamber, emphasized that a distinction between " old " and " new " pensioners must be maintained. Since " the ' old ' pensioners no longer help to create new wealth, society has to feed and maintain them; nor do they contribute any longer to the creation of the basis for the payment of pensions. . . . All pensions are paid entirely out of the labour product of the working people." Mr. Grotewohl continued: " Life under socialism must hold out different prospects to the people now working and building this new social order than did capitalism to these recipients of established pensions. In accordance with the principles of a socialist economy, a new goal must be provided for the old age of those who are making great efforts and sacrifices to build socialism." In Poland, where great dissatisfaction has been expressed at the discriminatory treatment of the old, the pensions of the new pensioners were nevertheless raised from 335 to 410 zlotys on the average—i.e., by about 22 per cent—and those of the old pensioners from 210 to 230 zlotys —i.e., by less than 10 per cent. It seems, however, that a reclassification of a part of the " established " pensioners is under way.[97]

TABLE 28

Increase in public expenditure on pensions

Billions of national currency per year

Country	Old scheme	New scheme	Percentage increase
Czechoslovakia . . .	7.2	8.1	12
Eastern Germany . .	3.3	4.3	30
Poland	3.1	4.0	29
Soviet Union . . .	25.1	38.2	52

Sources : The figures were derived from speeches introducing the new bills.

Only fragmentary information is available about the effects of the new measures on public expenditure for social security. It is clear, nevertheless, that the immediate increase was greatest in the Soviet Union and—to judge by the levels of minimum pensions—in Bulgaria and Rumania (see Table 28). In Czechoslovakia, probably the most advanced country in the region with regard to social welfare, total expenditure on pensions increased by about 10 per cent only.

Generally speaking, the recent changes represent an attempt by the less advanced of the countries to catch up with the level of social progress of their traditionally more advanced neighbours.[98] One example of this is the introduction of rather high family allowances in Rumania and Bulgaria, where hitherto only very small amounts were paid, as can be seen from Table 29. The new allowance for a family with three children, for instance, is equal to between one-third and one-half of the over-all average wage.[99] In this respect, the two countries are now brought into line with Czechoslovakia, where the new act raised still further the allowance rate for large families.

TABLE 29

Increases in family allowances

Units of national currency per month

	Bulgaria		Rumania		Czechoslovakia	
	Old scheme	New scheme	Old scheme	New scheme [a]	Old scheme	New scheme
1 child . .	12	12	50	100	70	70
2 children .	28	100	100	200	170	170
3 children .	56	190	150	300	310	310
4 children .	96	280	200	400	470	490
5 children .	136	370	250	500	630	710
Each additional child	100	100	50	100	160	220

Sources : Official decrees of countries concerned.

For persons earning less than 1,200 lei per month. For those earning 1,200 to 1,500, the allowance starts with the second child, for those earning 1,500 to 2,000 with the third, and for the higher income brackets with the fourth child.

It is hoped that a by-product of increased allowances in Bulgaria will be some withdrawal of married women from the already over-strained labour market.[100] A similar objective is behind the expected rise in children's allowances in Poland in 1957, where the introduction of substantial allowances for non-employed married women is also under consideration.

The demographic situation is of course an important factor determining the cost of any given social security policy. On the whole, the trend towards ageing populations is much less pronounced in eastern than in western Europe. The important exception is eastern Germany, where war losses and emigration have affected the older generations relatively little, with the result that persons of pensionable age (65 for men and 60 for women) account for 16 per cent of the population, compared with only 11 per cent in 1939 and 13 per cent in 1946. This, together with the high incidence of widowhood and war disability, explains the extremely high figure of 3.6 million recipients of social security benefits. On the other hand, in some countries of the region—particularly Poland, the Soviet Union and Bulgaria—the high proportion of children in total population makes improvements in family allowances more costly than in most western European countries.

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[97] Mr. Zawadzki, Minister of Labour and Social Welfare, in his speech to the Sejm in September 1956.

[98] Although on the face of it the situation of the pensioners in eastern Germany is not much better than in the other countries, one must keep in mind the importance of rationing in this context. Mr. Grotewohl emphasized strongly that if price increases occur when the rationing of meat, sugar and butter is eventually abolished, some measures will have to be taken to offset this effect on people with small incomes, including the pensioners.

[99] In Bulgaria, the coverage has also been extended by including children aged 15 and 16. The total amount of payments, covering 700,000 children, will increase from 134 million leva in 1956 to 430 million leva in 1957.

[100] See *Economic Bulletin for Europe*, Vol. 8, No. 3, pp. 37–38. It is characteristic of the labour supply situation in Bulgaria that minimum wages are also specifically guaranteed for workers who become temporarily unemployed.

Labour Relations and Conditions of Work

The new social policies have not been limited to purely financial improvements for the poorest part of the working or pensioned population. Important reforms in labour relations were also introduced in the Soviet Union and, later in the year, in several eastern European countries.[101]

The severe decrees on labour discipline introduced in the Soviet Union in June 1940 were allowed to remain in force until 1956. The essence of these decrees, which were the culmination of a long campaign to strengthen the discipline of labour and to reduce the excessive labour turnover of the 'thirties, was to forbid wage and salary earners to terminate employment at will. Workers who left their jobs without the approval of the management were liable to criminal prosecution, and unjustified absence from work was punishable with up to six months of corrective labour in the enterprise at wages reduced by up to 75 per cent. Even though the restrictions on labour movements were probably somewhat relaxed after the war (as witnessed by the increase in labour turnover) and the decree of 1951 abrogated penal liability for all but the more serious cases of absenteeism, the unqualified repeal of all the provisions of the 1940 decrees undoubtedly represents a highly important improvement in labour relations.

According to the new decree, factory, office and other workers are free to leave their jobs with a fortnight's notice to the management. As mentioned above, such workers forfeit some part of their claims to various social security benefits, but this seems a small price to pay for the restoration of the free contractual character of employment. With regard to absence without just cause, the decree provides that the management *may* take disciplinary action, including discharge from work, or, alternatively, it may submit the case for examination by a court of compeers.[102]

Labour discipline regulations, modelled on the Soviet pattern, were introduced after the war in most countries of eastern Europe, but there is no doubt that their application was much less rigorous than in the Soviet Union. Nevertheless, the recent universal abolition of legal restrictions on the freedom of movement of workers, coupled with some liberalization of work discipline at the factory level, has enhanced the role of economic incentives as regulators of efficiency and mobility.[103] At the same time, the appearance of unsatisfied demand for work in some countries, such as Poland, Bulgaria and Rumania, calls for measures to safeguard the worker's security of employment by restricting the management's arbitrary powers of dismissal.[104]

Moreover, improvements have also been made with regard to working time. The 1940 Soviet decree, which introduced an eight-hour working day in a six-day working week, remained in force until 1956,[105] when the working time on Saturdays and other days before a holiday was reduced by two hours and a six-hour day was introduced for young workers aged 16 to 18.[106] In addition, a promise was made to reduce the working day to seven hours for all categories of workers, and to six hours for underground workers, before the end of the Sixth Five-year Plan. These measures, however, do not go much beyond restoring the normal working hours (averaged over the year as a whole) which prevailed before 1940.

A 46-hour week has been introduced in the course of 1956 in Bulgaria, Czechoslovakia and Poland, and a 45-hour week has been announced in eastern

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[101] Thus, the Albanian Minister of Justice, Mr. Bilbil Klosi, introduced the revised Labour Code to the National Assembly in April 1956 as required " to bring the Labour Code into harmony with similar legislation in the Soviet Union and the other people's democracies ".

[102] In order to appreciate the full extent of this provision it is necessary to realize that until recently the management was obliged to take action leading to criminal prosecution, and cases were frequent and widely publicized of managers sued in courts for failing in this duty.

[103] Questions of wage systems and incentives are further discussed in the following section of this chapter.

[104] In Rumania, for instance, according to the amended labour code the worker may end the work contract by submitting 12 working days' notice ; cases have also been specified when the employer can terminate the contract, but the employee has been granted the right to appeal against the decision.

[105] Various additional wartime regulations providing for mandatory overtime were, however, rescinded after the war.

[106] Time-workers will be paid as for a full day; those on piece-rate are to be paid according to the work done, but the management " is obliged to ensure conditions for higher productivity... so that these workers' monthly earnings will not be reduced ". Employment of people under 16 was in principle forbidden, but in cases where exceptions were made (e.g., for apprentices) a four-hour day became mandatory.

Germany for 1957 with better terms for particularly hard work [107] and for juvenile workers. In Rumania and Albania, the reduction of working time applied to the latter categories only. Finally, the September meeting of the Hungarian Trade Union Council recommended a reduction of working hours to less than 48 a week in branches where work is damaging to health, and to 48 in those where the legal working time still exceeds this limit.

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[107] The unpopular practice of Sunday work in the Polish coalmines is to be reduced from 24 Sundays in 1956 to 12 in 1957, and to disappear completely by 1958. Owing to the extremely serious deficits in coal output, however, the miners are still exhorted to volunteer for Sunday work (Mr. Gomulka's speech to the miners in December 1956).

6. WAGE SYSTEMS AND INCENTIVES

Since the middle of 1955 the system of wage differentials has come up for severe criticism in the Soviet Union, and the necessity for a thorough revision was stressed at the XXth Party Congress. In 1956 it was decided to undertake similar revisions in several eastern European countries, where in earlier years wage systems had been developed which closely resembled that of the Soviet Union.

The main reason why a revision of the methods of wage fixing in the Soviet Union is thought to be necessary is that the policy of offering high rewards as an incentive for individual effort in a given occupation or job tends to make wage differentials as between industries and degrees of skill ineffective as an incentive for the choice of occupation and acquisition of skill. Once the decision was taken to abolish the labour discipline Acts and relax administrative control over labour mobility (as described in the preceding section) this defect in the wage system was bound to appear as a serious hindrance to a policy of steering the supply of labour by the mechanism of economic incentives rather than by direction.

Defects of the Present Wage System

The present wage system of the Soviet Union is the outcome of many modifications of the system introduced by the major wage reform of 1931. At that time, very large numbers of workers with widely different backgrounds were taken into industry and other urban occupations, and as a result the labour force was extremely heterogeneous as regards skill, professional tradition and level of education. In order to maximize efficiency with the given human material, the new wage policy, carried out under the slogan of " Fight against egalitarianism ", widened very considerably the range of rewards attainable in any given occupation. The replacement of time-rates by piece-rates was encouraged and steeply progressive rates of payment were introduced, with a variety of premia and bonuses for outstanding achievements in individual output.

This system of remuneration for effort, if carried beyond a certain point, has distorting effects in several ways. If the scale of basic wage rates in a particular enterprise covers a range of say, 1 to 2.5 (i.e., a worker in the highest grade has a basic wage two-and-a-half times as high as one in the lowest grade), the possibility offered to a lower-grade worker of doubling or even trebling his earnings frequently puts him in the same income bracket as, or a higher one than, a worker in a more skilled occupation, particularly if the latter is working on a time-basis. Moreover, the desired differentiation of earnings as between enterprises and industries, originally brought about by varying the levels of wage-scales, largely disappears. Consequently, workers are little interested in increasing their skills and professional qualifications in order to be promoted to higher grades, and recruitment to trades which it is desirable to expand is not sufficiently stimulated by the inter-industry differentials. Thus, the relative ease with which the norms of work can be over-fulfilled becomes the all-important guide to the choice of occupation and job.

Developments during and after the war accentuated the unfavourable trends of the earlier years. Despite the increase in productivity, both norms and basic wage rates in the Soviet Union have changed very little since before the war, whereas total industrial earnings per man employed have more than doubled. As a result, the share of basic wages in total earnings has declined on the average from about 75–80 per cent before the war to no more than 50–60 per cent at present.[108]

The maladjustments of the existing system would have been considerably smaller if procedures for norm-fixing and the norms themselves had been changed in accordance with technical progress. As it happened, the application of what are referred to as " technical norms " (i.e., norms of work arrived at after a thorough study of the technical and organizational aspects involved) was relatively rare, irregular and unevenly distributed amongst industries.[109] In

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[108] In coal-mining, where basic rates represent on the average about 57 per cent of earnings, in some cases as much as 75 per cent of earnings come from rewards other than the basic wage. (Mr. N. M. Shvernik's speech at the XXth Party Congress, *Trud*, 24 February 1956).

[109] The proportion of " technically fixed " norms (out of all norms) varies considerably from one trade to another. In 1956 it was, for instance, 79 per cent in the paper and woodworking industry, 57 per cent in the chemical industries, 55 per cent in the automobile and tractor industry, 24 per cent in engineering and 20 per cent in tool and instrument making. (*Kommunist*, No. 8, 1956).

TABLE 30

Average percentage over-fulfilment of norms in industry [a]

Industry branch	Bulgaria [b]	Czechoslovakia	Eastern Germany	Hungary [c]	Poland
All industry	*28*	..	*34*	..	..
Heavy industry .	24	43	25	..	47 [d]
Light industry .	30	56	30	20	37 [d]
Mining	..	..	..	..	30-40
Building and construction .	..	85	..	..	82 [d]
Engineering . .	40	81	46	40	100-120
Motor vehicle industry . . .	..	115 [e]	..	60	105

Sources : **Bulgaria :** *Planovo Stopanstvo,* No. 3, 1956. **Czechoslovakia:** *Plǎnované Hospodářství,* No. 9, 1956, p. 669, *Rudé Právo,* 29 September 1956. **Eastern Germany :** *Statistische Praxis,* No. 5, 1956. **Hungary:** *Társadalmi Szemle,* No. 8–9, 1954. **Poland ;** *Nowe Drogi,* No. 6, 1953 and *Zycie Gospodarcze,* No. 22, 1955.

[a] Unless otherwise stated, the data refer to socialized industry in one particular month in 1955.

[b] March 1956.

[c] 1954.

[d] 1952.

[e] June 1956.

most cases resort was made to " empirical " or " statistical " norms. These often tended to be based on outdated experience of average performance, and therefore to lag substantially behind actual standards of feasibility; hence the common experience of considerable over-fulfilment of norms.[110]

It is also thought that the multiplicity and complexity of the various premia and bonuses reduce their effectiveness.[111] Some of them—especially those for economy of materials and cost reduction—are frequently either so small that they only add to the burden of wage computation, or so large that they exceed the amount of savings made.[112]

The principal features of the Soviet wage system are characteristic of all eastern European countries. About 70–75 per cent of workers are paid on a piece-rate basis and, as shown in Table 30, a substantial over-fulfilment of norms is common, indicating the low share of basic wages in total earnings. Polish coal mines are a striking example of how the present system prevents the basic-rate scales from exercising their differentiating function. In spite of the clear need to encourage recruitment, the average earnings of miners (per 8-hour day) are on the same level as those prevailing in engineering and building, owing to the relative ease of norm fulfilment in these two trades.

The spread of basic rates appears to be particularly narrow in Czechoslovakia and eastern Germany. In the Czechoslovak building industry, for instance, the ratio of the basic rate of the lowest (first) to the highest (eighth) grade was 1 : 2.03 in 1955, but the effective gap was much narrower, because over-grading was frequently used as a means of competitive bidding for scarce manpower. Thus, there appeared to be no workers in the first grade and only 0.4 per cent of all workers were in the second grade. As a result, nearly 98 per cent of all building workers were in the third to sixth grades—and within these grades the ratio of lowest to highest rates of basic wage is only 1 : 1.35. This is a narrow gap in comparison with the widely varying incidence of norm over-fulfilment and the result is that average hourly earnings are greater in the lower than in the higher grades.[113] One of the reasons for such abnormal situations is that manual unskilled work usually provides more scope for over-fulfilment of norms than does a skilled mechanized occupation where the speed of work is largely dictated by the machine.

Thus, the absence of uniform criteria for norm-fixing prevents the due recognition of skill, with the result that many skilled workers prefer to take up non-skilled occupations. For Hungarian industry, as a whole, it was estimated that in 1954 as many as 30 per cent of skilled workers were employed outside their specialized trade. Moreover, having achieved some proficiency in a particular job, the worker is reluctant to switch to another, even if the change involves his up-grading, for fear of loss of income during the unforeseeable period of time before he can over-fulfil the norm. The result is a certain lack of labour mobility and difficulties in recruitment to some high-priority industries. For instance, new entrants in Polish coal mines may be attracted by high average earnings, but they soon find out that the basic rates are low whilst the over-fulfilment of norms is attainable only after a long period of training.[114]

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[110] In engineering, for instance, norms are on the average over-fulfilled by 60–80 per cent; in the chemical industry by more than 40 per cent; and in metallurgy by 35 per cent. *Voprosy Ekonomiki,* No. 8, 1955.

[111] There are, for instance, 17 types of premia in non-ferrous metallurgy and ten in the footwear industry.

[112] In the factory "Kauchuk", 60,000 roubles were saved in 1953 by economizing on raw materials, whereas the premia for cost reduction amounted to 2 million roubles.

[113] As reported by *Rudé Právo,* in July 1955 the averages were kčs. 7.01 in the fifth grade, 6.85 in the sixth grade and 6.78 in the eighth grade. Unjustifiable over-grading is also seen, for instance, in the textile industry in eastern Germany, where 90 per cent of all male workers are classified in the upper fifth to eighth grades, and only about one per cent in the first two.

In Hungary, highly skilled (eighth grade) turret lathe operators earned in August 1956 an average of 1,115 forints on the basis of " technical " norms, while in the same workshop a semi-skilled welder earned about 1,700 to 1,800 forints after three months' training, because, on the basis of an " empirical " norm, he was able to reach a performance as high as 180–200 per cent. (*Szabad Nép,* 12 August 1956).

[114] *Gospodarka Planowa,* No. 6, 1956.

The New Wage Policy

In the Soviet Union, a State Committee for Wage and Labour Problems was set up in mid-1955 with the task of drastically revising the wage system. The main features of the reform, as summarized at the XXth Party Congress,[115] seem to be as follows: basic wage rates are to be raised to ensure that the bulk of earnings derives from them; secondly, the pattern of relative wages as between industries and geographical regions is to be adjusted, and differentials for skill and qualifications are to be brought up to date; thirdly, the system of premia is to be simplified so that it can be easily understood by the worker. In the course of 1956, experiments on these lines began in a number of enterprises, especially in engineering.[116]

Among the eastern European countries, criticism of the defects of the present wage system and determination to correct its weaknesses are most in evidence in Czechoslovakia, Poland and Rumania. In Czechoslovakia, Mr. Široký stated in the Party conference in June 1956 that the wage system would have to be substantially improved during the Second Five-year Plan. Partial, but apparently still unsatisfactory improvements have already been introduced in some sectors, particularly in the building industry.[117] In Rumania a comprehensive reform, to be introduced in 1957 after a preliminary period of experimentation, envisages an increase in basic wage rates by 36 per cent on the average. At the same time, average earnings are planned to increase by no more than 15 per cent, so that the share of basic wages will go up. In Poland, hopes are attached to the effects of decentralization, and various schemes are being discussed aiming at reconciling the need for a national wage policy with the desirability of giving more elasticity to the system at the enterprise level. It has been suggested, for instance, that the two purposes might be met by prescribing for an enterprise, or for a group of enterprises, upper limits of the wage fund and lower limits of the volume of employment. Within these limits the levels of average wages and of employment, as well as the manipulation of premia and bonuses, could be left to the discretion of the management of individual establishments.

Both in eastern Europe and in the Soviet Union, the revision of the wage system is likely to prove a difficult and delicate task. For one thing, the various adjustments—the increase of basic rates, the widening of their spread, the revision of premium and bonus systems, and the elimination of steeply progressive piece-rates—need to be carried out in one comprehensive operation. Moreover, the new system needs to be universally applied in order to avoid haphazard differences in levels of earnings.

A further difficulty arises from the fact that a major adjustment of relative wages, such as that now contemplated, necessarily involves an actual cut in money earnings for a number of hitherto overpaid workers. This difficulty can be circumvented, or at least attenuated, if the total wage fund is allowed to increase during the period when adjustments in relative wages are carried through. It may well be, therefore, that some of the countries of the region will for a certain period abstain from the usual policy of price reductions and instead distribute the increase in real wages through higher wages with unchanged prices.[118] It seems that the fact that no major price reduction has been decreed in the Soviet Union since April 1954 can be partly explained by the desire to leave room for some upward movement of total money earnings, which, without endangering monetary stability, could facilitate the adjustment of relative earnings.

Effects on the Distribution of Income

The effect of the envisaged reform on the spread of workers' incomes is somewhat uncertain, since two opposite tendencies are present. On the one hand, the revision of skill differentials will result in a wider spread of basic wages. On the other hand, the elimination of the very high incomes generated by the overfulfilling of norms—together with the recently introduced minimum wages—will cut off the tail-ends of the distribution and thus reduce the spread of earnings. Finally, the reduction of earnings for overpaid workers in the unskilled and semi-skilled categories seems most likely to increase the variance of the distribution.

The net result can be expected to be a lessening of the inequality of earnings. In fact, the whole reform may be described as an attempt to rationalize the wages system in such a way that a better incentive effect can be gained on the basis of a more equitable distribution of workers' incomes.

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[115] See the speech delivered by Mr. Shvernik, *loc. cit.*

[116] For instance, in the Moscow ball-bearings factory, the composition of earnings is being changed as follows:

Source of earnings	*Percentages of total earnings*			
	Piece workers		*Time-workers*	
	At present	*New plan*	*At present*	*New plan*
Basic rate	47.5	72.0	68.7	83.0
Over-fulfilment of norms .	40.2	15.5	—	—
Premia	—	—	22.1	8.3
Progressive rates	2.2	1.1	—	—
Other supplements	10.1	11.4	9.2	8.7
Total earnings . . .	100.0	100.0	100.0	100.0

[117] The spread of basic rates was recently increased from 1 : 2.03 to 1 : 2.51.

[118] The resolution of the VIIth Plenary Session of the Polish United Workers' Party declared it inadmissible to introduce modifications which would result in any lowering of earnings (*Nowe Drogi*, No. 7–8, 1956). In Rumania, as already mentioned, the revision of basic rates will be accompanied by a considerable increase in the total wage fund (15 per cent in the course of 1957).

7. Decentralization of Planning and Management in Eastern Europe and the Soviet Union

In 1956, a number of important changes in the methods of planning and economic administration were introduced in the Soviet Union, as well as in some of the eastern European countries. All these reforms were in the direction of simplification and decentralization.

In the Soviet Union this was the continuation of a trend which had been apparent since 1954. In eastern Europe, it was rather the reversal of a previous trend towards a higher degree of centralization with increasing powers to the central administrative bodies and a corresponding limitation of the scope for economic decision-taking by local authorities and at the enterprise level. This trend towards excessive centralization was closely connected with the growing strain put on the eastern European economies in the period from 1950 to 1953. The rigid execution of ambitious investment plans created tensions and distortions which again called for an extension of the system of centralized and detailed direction of production processes and trade flows. The attempts to strengthen the central direction were often frustrated, however, by the centrifugal tendencies arising in an economy under great strain.[119]

Three different though closely interrelated moves can be distinguished. First, the structure of the central machinery for economic planning and administration has been changed; secondly, more freedom of action has been given to local government bodies; and thirdly, the autonomy of the individual enterprise has been increased. The tendency to place more responsibility on the enterprise gave rise to new problems of workers' participation in management, through workers' councils or trade unions.

Reorganization of the Central Planning Administration

The reform of the systems of central planning began in the Soviet Union in the middle of 1955 and was followed by similar measures in some eastern European countries in 1956. Broadly speaking, the reforms involved a limitation of the executive functions of the central planning authorities, with the aim of enabling them to devote more attention to economic planning proper, especially long-term planning which was considered to have been neglected in the past.

The Soviet reform of May 1955 limited the functions of the planning authorities to the laying down of a restricted number of aggregate targets for basic items. The more detailed elaboration of the plan was given over to the respective ministries, either for the Union as a whole or for the individual republics. The State Planning Commission (Gosplan) was reorganized, and its task was confined to long-term planning, while current planning was entrusted to a new body, the State Economic Commission (Gosekonomkomissia).

Czechoslovakia followed the example of the Soviet Union, both in stressing the role of the Central Planning Office as an organ mainly for over-all planning and in handing over executive functions to ministries and national councils. The Polish reform went considerably farther in this direction. The Planning Commission, which had developed into a huge superministry for economic affairs, has now been divested of its quasi-legislative powers and managerial functions and forbidden to interfere with the current work of ministries. It has become a specialized agency at the disposal of the Council of Ministers, entrusted with the task of preparing over-all plans in co-operation with scientific institutions, ministries and economic agencies.[120] In eastern Germany, the organizational structure of the Planning Commission was modified in the same way as in the Soviet Union.

The changes in the administrative structure have been accompanied by a considerable simplification of the planning procedure.[121] The number of commodities for which specific targets are laid down by the central planning authorities has been reduced, as well as the number of commodities subject to allocation schemes, as can be seen below:

	1955	*1956*	*1957*
Eastern Germany:			
Specified production targets	950	810	440
Poland:			
Specified production targets	..	1 406	768
Commodities subject to allocation	..	1 411	1 150
Technical coefficients	..	587	230

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[119] "It is often said that 'excess centralization' was the principal fault in the methods applied so far. In reality, however, ... the central decisions have not at all been effective. ... It was not some type of 'excess centralization' that became effective in management by the State, but the opposite: many elements of anarchy appeared. ..." (Gy. Péter, Chairman of the Hungarian State Commission for Industrial Organization, *Népszabadság*, 7 February 1957.)

[120] More recently, similar directives were issued in the Soviet Union. The February 1957 Plenum of the Central Committee of the Party stated in its resolution:

"The Gosekonomkomissia must not duplicate the work of Gosplan and other organizations, and must not interfere in the functions of administration; its duty, in addition to current planning, is to co-ordinate the efforts of administrations in economic areas to fulfil their annual plans." (*Pravda*, 16 February 1957.)

[121] One of the advantages of this simplification has been the earlier appearance of the annual plan. In the Soviet Union the enterprise plans for 1954 were only established during the second quarter of that year. In contrast, the 1956 Plan was sent to enterprises before the beginning of the year. Criticism

(Continued on next page)

Concurrently with these measures of simplification, the staff of the central economic administrations was reduced very considerably. For instance, the staff of the Polish Planning Commission was reduced from 1,800 to 900 persons, and in Czechoslovakia the staff of ministries and their subordinate organs was reduced by nearly 13,000, of which 3,800 in the ministries.[122] The diminution of the in- and out-flow of plans and reports has also permitted staff reductions at the enterprise level : a cut of 200,000—saving 1.7 billion roubles in salaries—was made in the Soviet Union in 1956.[123]

Decentralization in the Soviet Union

In the Soviet Union, parallel to the changes in planning and administration at the central government level, there has been a trend towards devolution of authority and initiative in economic matters from the all-Union government to the governments of the constituent republics. This reform began in 1954 and was extended considerably in 1956. In May of last year all enterprises in river and motor transport and most of the enterprises belonging to food and other light industries, as well as enterprises in the building material industries, were transferred from all-Union to Republican ministries. Only some key industries in these sectors were kept under all-Union administration.[124] As a result, the percentage of total output produced by enterprises under all-Union control declined considerably, as shown below:

	Percentage
1953	69
1954	57
1955	53
1956	45
1957 Plan	41

Moreover, the responsibilities of the Council of Ministers of the individual republics have been extended, most recently consequent upon the December 1956 and February 1957 decisions of the Party Central Committee. The targets in the Central Plan (i.e., that ratified by the Council of Ministers of the USSR) cover only the correlations between producing sectors, between the State and the collective farms, between purchasing power and retail and other consumer supplies, and between consumption and saving. The Councils of Ministers of the Union Republics perform the remainder of the programming, both in preparing the draft plans for central correlation and in confirming the operating targets set on the basis of the global development plan. Moreover, small-scale local industry is now wholly omitted from this planning process and, for the first time, the 1957 Plan specifically left out of account production of coal, timber etc. by locally administered industry. The republican governments now receive an over-all quota for non-productive investment (e.g., public health, education, housing) and decide freely its distribution by individual projects, and they have limited powers of choice over investment in republican-administered industry. As a result of these measures the share of total capital investment controlled by the republics rose from 24.4 per cent in 1955 to 32 per cent in 1956.[125]

The process of devolution is also to be extended to local government bodies at a lower level. The December decision required that local soviets should play a more active part in planning for regions, towns and districts, and take more interest in local and co-operative industry, housing and road construction. The February decision called for the creation of planning bodies in each economic region and for greater economic co-ordination within the various regions.[126]

The Role of Local Government in Eastern Europe

The extension of the autonomy of the Soviet republics in economic matters has inspired a similar move in Czechoslovakia. In July 1956, the National Assembly granted new powers to the Slovak National Council, to the Government of Slovakia—the Board of Commissioners—and to the individual commissioners. The National Council acquired the right to approve economic plans and budgets for Slovakia within the over-all limits set by the central government, and to nominate members of the Board of Commissioners, a prerogative which had hitherto belonged to the central government. The Board now controls economic activity in Slovakia with a few exceptions

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is still made that plans are frequently changed—the Minsk motor-works had its 1956 Plan changed fifteen times during the year, and the Azerbaidzhan Oil Ministry altered the plan for its refineries eighteen times during 1956.

[122] *Rudé Právo*, 23 December 1956.

[123] *Pravda*, 8 February 1957. In 1954 and 1955 a reduction of 750,000 was made in the administrative staff, at both governmental and enterprise levels (saving 7.2 billion roubles) as a result of these and other rationalization measures.

[124] Among the industries which remain under all-Union control are cement, paper, synthetic fibres, leather, machinery for light industries and medical appliances.

[125] For other indicators of the increasing financial responsibilities of republican governments between 1951 and 1956 (Plan) see the SURVEY for 1955, p. 215.

[126] The February 1957 decisions of the Central Committee complain that " departmentalism in the management of industry and construction weakens or breaks the normal territorial contacts between enterprises in different branches of industry located in the same economic area. It often makes it impossible to solve economic problems on the spot, to utilize in the most efficient way available material, labour and financial resources, and to take efficient measures for eliminating the shortcomings revealed in the course of the fulfilment of state plans." It was also pointed out that, as a result of excessive centralization, production capacities of enterprises were not fully used and much wasteful transport took place. (*Pravda*, 6 February 1957.)

such as railway transport and enterprises in the engineering and metal-producing industries, which remain under the direct control of the central government.

More generally, there is a recent tendency in most countries of eastern Europe to give more responsibility to local government, at the provincial or municipal level, especially in matters concerning local industries, handicrafts, transport, trade and agriculture. The prospects for widening of local administration and self-government depend of course to a large extent on the availability of competent personnel. In this respect, the situation differs in the various eastern European countries, depending upon differences in traditions of local government.

Increased Autonomy for Enterprises

It was seen that the reforms of the central economic administrations embrace two distinct moves. On the one hand, the distribution of tasks between the planning offices or commissions and the responsible ministries has been changed and, on the other hand, there has been a more or less pronounced tendency towards planning in less detail. The latter trend is necessarily accompanied by an extension of the autonomy to be given to the individual enterprises.

The first important step in this direction was taken in the Soviet Union. In August 1955, the Council of Ministers issued a decree on the extension of the rights of directors of enterprises. This was followed a year later by Poland, Czechoslovakia and, in varying degrees, by other eastern European countries.

In the Soviet Union, Poland and Czechoslovakia, enterprises are now allowed to prepare their own technical, industrial and financial plans within the yearly or quarterly plan quotas set for each enterprise by the appropriate ministry. Enterprises now have more freedom to prepare and change their delivery plans—equally within the framework of the fixed quotas—and they are allowed to modify technological processes. Moreover, they can fix prices for commodities of minor importance which do not appear in the official price lists, and accept orders for production not foreseen in the plans, provided that this does not interfere with the execution of the plan targets.

In the field of investment the enterprise continues to be under the strict control of monthly or quarterly orders received from the authorities, although it has a somewhat greater scope for undertaking capital repairs without authorization in each case, and the amortization fund of an enterprise may be used not only for repairs but also for the modernization of existing equipment and for the purchase of new machinery if this is more economical than repair. Moreover, the enterprise is encouraged to purchase building materials produced by local and co-operative undertakings, rather than to apply for deliveries from central stocks.

Enterprises have also been given a wider margin in matters of internal organization. Directors can appoint heads of departments and decide upon the merging of departments and the setting up of new ones. They can lay down certain labour norms which have not been defined by the higher authorities, grant bonuses and extra payments for special tasks, and alter upwards or downwards numbers of specialist staff, all within the framework of the general wage scales and payroll allocations.

With regard to the composition of output, it seems that the Soviet enterprise has more freedom of action than has so far been given to Polish or Czechoslovak enterprises. A clear distinction is made between those goods the output of which is planned centrally—and the number of which tends to decrease—and, on the other hand, goods for which the enterprise can change its " assortment plan " by direct agreement with the customers—i.e., in the case of consumer goods, the state trading agency and, in the case of other goods, the receiving administration—without prior authorization from the supervising ministry. This devolution is much more advanced for consumers' than producers' goods, and there is—at least in the Soviet Union—a clear tendency to provide for a more direct transmittal of the consumer's wishes, through the trade organization, to the producer. For capital equipment, on the other hand, the enterprise cannot on its own initiative deviate from the original production plan.

As regards sales, no major changes seem to have taken place. The producing enterprise continues, as a general rule, to dispose of its output by central prescription, but in the Soviet Union direct negotiations between enterprises tend to have a bigger part than previously in the execution of the supply plans. In Poland, the system has also been modified slightly. An enterprise is now free to sell its output to a state, co-operative or private enterprise, if the trading corporation to which it would normally be sold has proved unwilling or unable to buy it within a period of two weeks. The same applies to sales of unused or unnecessary machinery and equipment if the supervising body does not issue the appropriate instructions within a time limit of two months.

It is difficult to judge the true economic significance of these various changes in the authority of the management of an enterprise, especially since there is no reason to think that the new pattern has finally been established. It is felt in all the countries that the system of central planning and detailed supervision of economic activities had been carried to a point where little room was left for individual initiative by the manager.[127] But while this is generally agreed, governments appear to take a cautious and empirical view of how far the process of decentralization and simplification has to be carried, and they clearly prefer to proceed step by step, feeling their way towards a new balance between central direction and decision-taking at the enterprise level.

It is therefore possible that further piecemeal reforms will be introduced, tending to increase the flexibility in management and to avoid involving the administrative machinery in a too complex system of detailed prescriptions. Such further reforms, varying from country to country and from branch to branch, may well give enterprises a wider choice with regard to production patterns, sales and purchases, and possibly also price formation. However, two major controls are likely to continue to be applied to all enterprises above a minimum size: investment decisions—apart from minor ones—are likely to continue to be subject to central approval, as well as the total wage payments of enterprises. These two levers of control will probably be considered as the minimum requirements for directing the economy according to an over-all plan and for preserving the general balance of supply and demand.

The Role of Trade Associations

As mentioned, the reforms actually carried out in Poland do not go far beyond the reforms introduced in the Soviet Union and Czechoslovakia. But a very lively discussion of the future model of the economy has developed in Poland, and the general opinion seems to be that the changes introduced so far are only the beginning of a more thorough, but gradual, change in the system of planning and management.

In this discussion it is generally taken for granted that the enterprise will finally have a more independent position than at present *vis-à-vis* the government agencies. Since most participants in the discussion also want to retain what may truly be described as a planned socialist economy, the question naturally arises of the need for intermediate organs which can serve as a link or coupling between relatively independent enterprises and the government. It has been suggested in Poland that trade associations or boards might take over this function of mediator.

Such associations, directorates or boards in eastern European countries had become purely administrative bodies whose main function was to transmit orders from the government authorities to the individual enterprises. The future functions of these boards, as now envisaged in Poland, are to represent the interests of the enterprises within a given industry rather than to pass down orders from above. Their function would essentially be advisory, to the government agencies as well as to the member enterprises. Being semi-public bodies, they would be able to serve as focal points for the reconciliation of the general interest as represented by the government and the particular interest as represented by the enterprise.[128]

What seems to be envisaged is to transform the now existing boards into trade associations more or less of the type existing in Yugoslavia, which again seems to have been modelled to some extent on the traditional Austrian system of semi-official industry and trade associations. These Yugoslav trade associations cover all the industries within a given branch and serve as advisory bodies in case of controversy among the members; they undertake research and advise upon specialization and they also serve as intermediaries in consultations with the Federal Planning Institute and other central authorities. In Poland, however, a more active role seems to be contemplated for the trade associations. This is a natural consequence of the difference in economic structure between Poland and Yugoslavia. After the thorough reform some years ago of the Yugoslav economic system, the enterprise was expected to be genuinely competing with other enterprises in its branch, and the tendency was therefore rather to restrict the role of trade associations, lest they become instruments for monopolistic arrangements. Although the discussion of the future economic set-up in Poland is in many ways inspired by the Yugoslav experience, it is generally not envisaged to introduce a competitive system on the Yugoslav model. Consequently, the associations are expected to be more actively concerned with the economic problems of the participating enterprises and to form the link, although mostly in an advisory capacity, between planning and plan execution.

Workers' Councils

The common denominator of the institutional changes mentioned so far is the increasing reliance on initiative from below. Instead of an economic hierarchy with one-way lines of command, a movement has begun towards a more variegated pattern of decision-taking. In accordance with this development, the question of workers' participation in management has also come to the fore.

By far the most important development took place in Poland. During the autumn of 1956, workers' councils were created in the majority of industrial enterprises. This spontaneous movement was subsequently confirmed by a law on workers' councils, voted in November 1956. This law was prepared hastily, as a guide for the hitherto uncoördinated initiatives of the workers, and many questions concerning the role of the councils, in relation to the management and to superior economic bodies, were left undecided or vague.

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[127] The keynote of the present Soviet policy was sounded in the February 1957 Party decision: " The centre of gravity in the operative management of industry and construction must be shifted to the people on the spot." (*Pravda*, 16 February 1957.)

[128] See speech by Mr. Lesz, Vice-Chairman of the former Planning Office in Poland, reported in *Zycie Warszawy*, 21 December 1956.

The law states that workers' councils, elected by all employees of a firm, shall administer the enterprise, which nevertheless remains the property of the State. The director is appointed by the State authorities after agreement with the council; he is answerable both to the authorities and to the council; and he has to direct the enterprise in accordance with the plan, the resolutions of the council and orders from a superior state authority. In case of conflict between the director and the council, the final decision rests with the minister.

If, as already mentioned, the devolution of authority to the enterprise director raises questions of intermediate organs between enterprise and government, even more important questions of co-ordination of efforts and reconciliation of interests arise if self-government by workers' councils at the enterprise level is to become a reality within the framework of a planned economy. This problem has already presented itself in Poland.[129] One suggestion—obviously inspired by Yugoslav experience—under discussion in Poland is to create so-called producers' councils, which, to begin with, would link the existing central industrial boards and the enterprises and eventually replace the boards.

It is too early to judge what will be the economic functions of workers' councils in Hungary. In eastern Germany, an *ad hoc* conference was convened on 6 to 8 December 1956 to deal with the question of workers' councils. It seems to be the intention to allow the creation of such councils, but their competence would be far more limited than in Poland. They would mainly take over some tasks hitherto incumbent on the trade unions, such as the formulation of suggestions for the improvement of productivity. The councils are to be elected from lists prepared by the trade unions—lists which, however, would comprise more candidates than are to be elected.

In the Soviet Union and Czechoslovakia, increased participation by the workers is sought through an activization of trade unions. The Soviet Party decision of December 1956 called on trade unions to take a more active part in the working out and implementation of production and financial plans of the enterprises and in settling questions of wage rates, safety measures and housing for workers. It also recommended the convocation of monthly meetings of all workers to discuss the production problems of the enterprise. Similarly, Czechoslovak trade unions were exhorted to take a more active part in the preparation of production plans and in the control of their execution, and the directors of enterprises were invited to consult with trade unions before taking decisions which are not prescribed by the plan.[130]

The " Experimenting Enterprise " in Poland

It has already been pointed out that the reforms in the direction of decentralization and simplification bear the mark of cautious experimentation towards a new pattern. This is especially true of Poland. On the one hand, there is a widespread opinion—as reflected in a lively public discussion—that rather thorough-going changes in the working of the economy are called for, but on the other hand, it is stressed that the task of developing a new " model " for a socialist economy, adapted to Polish conditions at the present stage of development, is a matter of practice rather than of theory. There is also an understandable hesitation to embark upon sweeping reforms at a time when the economy is under great strain and major institutional changes might entail temporary losses in output.

When it has become clear that the hitherto existing system is in need of reform and while the future pattern is still not clear, the logical procedure is that of the controlled experiment. This attitude has received official confirmation in Poland through the institution of the " experimenting enterprise ". A special commission was created with the task of studying the many suggestions for improvement in management which were coming forth, especially from the workers' councils. If a suggestion appears to be worth while, but would involve changes beyond the competence of the minister concerned, the enterprise may, with the consent of the Prime Minister's office, be given the status of an " experimenting firm ". The experiment may comprise the methods of fixing prices, the organization of supplies and sales, rates of interest on fixed and circulating capital, the planning of production, the use of amortization funds and the fixing of wages and premia, etc. Once an enterprise is given the status of " experimenting firm " it is exempt from the existing financial regulations to the extent necessary for carrying out the experiment. To avoid a profusion of such enterprises, their number may not normally exceed five per cent of the total number of enterprises under a given ministry.

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[129] " Co-operation between enterprises and Central Industrial Boards and Ministries has deteriorated and may possibly further worsen as Workers' Councils increasingly use their rights." (*Zycie Warszawy*, 13 February 1957.)

[130] See speech by the Prime Minister, Mr. Široký, at the Conference of Representatives of National Committees, *Rudé Právo*, 23 December 1956.

Chapter II

THE LONG-TERM PLANS OF EASTERN EUROPE AND THE SOVIET UNION, 1956 TO 1960

1. The Status of the Plans

In the earlier post-war years, the periods for which long-term plans were established in eastern European countries differed as regards both the starting year and the number of years covered. At a later stage, it was agreed to synchronize the planning periods so that in all the eastern European countries except Bulgaria a new planning period of five years would begin on 1 January 1956.[1] Thus the plan periods were made to coincide with that of the Sixth Five-year Plan of the Soviet Union.

In the course of 1956, all the countries concerned, with the exception of Bulgaria, have published economic plans for the years 1956 to 1960, and the purpose of the present chapter is to give a comparative analysis of these plans. Such an analysis, however, encounters two serious difficulties.

First, the published versions of the plans give only a limited number of key targets, and in some cases (the Soviet Union, Czechoslovakia, Rumania and eastern Germany) the published documents are in the nature of resolutions giving directives to the planning authorities. Thus, the amount of information available precludes a full evaluation of the internal consistency of the targets and an examination of the underlying assumptions.

Second, and even more important, the plan texts were elaborated towards the end of 1955 or early in 1956 and thus take no account of the changes in economic policy and in the general conditions for planning which have occurred since then. This is, of course, particularly important in the case of Poland and Hungary. The recent events in Hungary have in several ways changed the conditions for economic planning: reconstruction tasks have moved to the forefront for some time to come, and it is as yet not clear when a new long-term plan will be drawn up. In Poland, some modifications to the original plan outline were announced at the October Plenum of the Central Committee of the United Polish Workers' Party, and these have been taken into account in the description which follows. It is possible, however, that more far-reaching changes in the plan will be decided by the newly elected Sejm. For eastern Germany, the preliminary version of the plan, presented as draft directives to the Party Conference in March 1956, is the only published text; the Plan Law itself, with a far more complete and consolidated version of the plan, was to have been published by July 1956, but has not yet appeared. In the meantime, the conditions for eastern Germany's foreign trade have changed in important respects, and it seems that in eastern Germany—as in Poland and other countries of the region—the more insistent claims for an early improvement in real wages will result in important modifications of the plan. Likewise, it has been announced in Czechoslovakia and Rumania that the plans for these countries will be revised forthwith, and in the latter country substantial changes appear to be contemplated. Finally, the Central Committee of the Communist Party of the USSR, at its meeting in December 1956, gave instructions for a revised version of the Sixth Five-year Plan to be submitted to the Supreme Soviet before July 1957.

Thus, all seven plans here discussed are known to be subject to more or less important modifications. It is as yet uncertain to what extent the general trends of development foreseen a year ago remain unchanged and to what extent even the broad characteristics of the plans—such as rates of accumulation and of increase in national income, and the allocation of investment resources among industries—are being modified.

The main reason for the synchronization of plan periods was, of course, to enable the plans themselves to be co-ordinated, in particular with a view to developing trade among the countries of the region on the basis of a more correct evaluation of cost relationships. These questions have been given growing attention in very recent years, and in the first half of 1956 a certain amount of preliminary work on determining lines of specialization to be assigned to the various countries appears to have been done within the framework of the Council for Mutual Economic Assistance. At this first stage, the endeavours were concentrated largely on the problem of specialization in the engineering industries. So far, however, the resulting decisions are explicitly reflected only in the directives for the Czechoslovak plan which appeared in June 1956. Since the summer of 1956, activities to co-ordinate the plans appear to have been delayed or deferred, and this is probably among the reasons why, more than one year after the beginning of the plan period, final and complete plans have still not been published.

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[1] Bulgaria's current plan expires at the end of 1957 and is to be followed by a Three-year Plan for the period 1958 to 1960.

2. The Over-all Targets for National Income and Investment

The annual rates of growth of national income foreseen in the plans for 1956 to 1960 are shown in Table 1, together with those planned and actually achieved in the preceding plan period.

It appears that in the preceding plan period the targets for total national income were reached, or nearly reached everywhere except in, Hungary and Albania. Hungary had by far the most ambitious target, but the actual rate of growth over the period was smaller than in any of the other countries.[2] This experience seems to have influenced the planning for the 1956–1960 period, for which Hungary shows the lowest rate of expansion. For the rest of the eastern European countries, the rates of increase in national income foreseen are very similar—ranging from 8 to 9 per cent annually—and in every case the new target is distinctly lower than both the planned and the actual increase in the preceding period. It is only natural that the extremely high rate of growth in past years should now be followed by somewhat more moderate increases; the possibilities of stepping up industrial production through a fuller utilization of industrial capacity are now less than they were a few years ago, and the rate of transfer of manpower from agriculture to industry is bound to slow down.

The Soviet Plan is something of an exception, with a rate of increase as high as that planned, and only slightly lower than that actually achieved, in the 1951-1955 period. This seems to be explained largely by a particularly ambitious target for agricultural output.

The increase in income per head of population implied in the plans can be indicated only roughly, in the absence of population forecasts for most of the countries. The figures below show nearly the same

Table 1

National income and investment in eastern Europe and the Soviet Union

Country	National income				Gross fixed investment		Accumulation as a percentage of national income		
	Average annual percentage rate of growth				*Average annual percentage growth*		Annual average for preceding plan period	1955	Annual average 1956 to 1960 [c]
	Preceding plan			1955 to 1960	1955 to 1960 [a]	1951–55 to 1956–60 [b]			
	Period	Plan (1)	Actual (2)	Plan (3)	Plan (4)	Plan (5)	Actual (6)	Actual (7)	Plan (8)
Albania	1951–55	15	11	9	..	5	..	..	..
Czechoslovakia	1949–53	11	9½	8	15	10	25	19	22
Eastern Germany	1951–55	10	10	8	18	13	12	12	18 *
Hungary	1950–54	18	8½	7	11	2	24	15	18
Poland	1950–55	13	11	8½	8	7	25	23	18
Rumania	1951–55	13	14	8½	13	11	25	24 *	25
USSR	1951–55	10	11	10	10½	11	26	24	24

Sources : See Appendix B.

[a] Calculated on the assumption that investment was intended to increase at a constant rate sufficient to give the total planned for the whole period of the plans.

[b] The percentage increment from the period 1951–55 to the period 1956–60, expressed as an annual rate.

[c] The percentages of accumulation under the previous and the current five-year plans are not fully comparable because of the impact of price changes. The comparability between 1955 and the current plan period is, however, of small importance because investments have been mostly calculated at prices valid in 1955, except in Poland where they have been calculated at 1 July 1956 prices.

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[2] For a discussion of planning and investment in Hungary from 1949 to 1954, see *Economic Bulletin for Europe*, Vol. 7, No. 2.

ranking as those for total income, except that the eastern German target appears to be as high in terms of income per head as that for the Soviet Union:

Planned Average Annual Increases in National Income per Head

Percentages

Soviet Union	8
Eastern Germany	8
Rumania	7½
Czechoslovakia	7
Poland	7
Hungary	6½
Albania	6

The Plans for Investment

The average annual rate of increase in investment foreseen in the plans is in most countries of eastern Europe considerably higher than the rise in national income (see columns 3 and 4 of Table 1), which implies a general intention to raise the share of income devoted to investment to a higher level than that reached in 1955. But this is perhaps a somewhat misleading comparison, for in that year investment in several of the countries was exceptionally low compared with national income. If instead one considers the average percentage increase in investment between the two plan periods, expressed as an annual rate (col. 5 of Table 1), it appears that investment is planned to grow at roughly the same rate as income in Czechoslovakia, Rumania and the Soviet Union, while a fall in the share of investment is foreseen in Hungary and Albania, and to some extent in Poland. By contrast, investment in eastern Germany was planned to increase at a much faster rate than income.

Roughly the same picture emerges from the last three columns of the table, where the burden of investment implied in the plans is expressed as the share of national income devoted to accumulation—i.e., broadly speaking, net fixed investment *plus* increase in stocks. It will be noted that only in two of the countries, the Soviet Union and Rumania, do the plans imply that accumulation will continue at the level of around 25 per cent of national income, which in eastern Europe and the Soviet Union is sometimes regarded as a generally desirable target, and which was reported to have been achieved in all the countries except eastern Germany over the preceding plan period as a whole, though with considerable fluctuations from year to year.

The Investment Target in Eastern Germany

The exceptionally low rate of investment in eastern Germany during the period 1951 to 1955 was due largely to the heavy burden of occupation costs and other commitments for external payments; but difficulties in developing the building and building materials sectors were also partly responsible. In spite of a low rate of investment, national income expanded at the handsome average rate of 10 per cent per annum thanks to the considerable opportunities which existed at the start of the period for expanding output by increasing the utilisation of existing capacity.[3]

The original version of the plan for 1956 to 1960—which, as has been mentioned, will now be modified—laid down the very ambitious target of raising the share of accumulation in national income to something like 21 per cent by 1960. This implied nearly a doubling of the 1955 volume of accumulation.

One favourable circumstance, which may make it easier to raise investment, is the economic agreement concluded with the Soviet Union in the middle of 1956 (some months after the Plan had been drawn up). The agreement will relieve eastern Germany's external burden by an amount of slightly more than one billion DM in each of the years 1957 to 1960, which corresponds to roughly one-fifth of the difference between the annual volume of gross investment as originally planned for the current five-year period and actual investment in the preceding quinquennium.[4] This will be of direct help in raising investment, since the change in end-use from exports to domestic investment can take place in the main without substantial changes in the allocation of production factors within industry: most of the increment of investment is to be machinery and other equipment which can be readily available in eastern Germany once export obligations are reduced.

It is already clear, however, that the investment target will be very much smaller in the final version of the plan. The main difficulty in increasing investment in eastern Germany stems from the demands it will make on the building industry, where output was planned to rise by no less than 55 per cent from one five-year period to the next. This would have required not only a much improved supply of building materials, but also a very considerable increase in manpower in the building industry. It is hard to see how this could be achieved in view of the fact that the total supply of manpower can be expected, at best, to remain unchanged, while the fluidity of the labour force is bound to be much reduced in the

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[3] For further discussion, see " Structural Adaptations in Eastern and Western Germany ", *Economic Bulletin for Europe*, vol. 8, No. 3.

[4] The East German-Soviet economic negotiations in December 1956 seem to have been concerned mainly with a possible medium-term emergency loan and with the expansion of trade between the two countries. The simultaneous drastic cut in the eastern German investment plan for 1957—from about 10.5 billion to about 6.5 billion DM—appears to indicate the intention of utilizing any further assistance from abroad entirely for raising consumption.

TABLE 2

Shares of agriculture, industry and housing in total gross fixed investment and total employment

Percentages

Country	INDUSTRY			AGRICULTURE			HOUSING	
	Share of working population	Share of total gross fixed investment		Share of working population	Share of total gross fixed investment		Share of total gross fixed investment	
	1955	1951–55 Actual	1956–60 Plan	1955	1951–55 Actual	1956–60 Plan	1951–55 Actual	1956–60 Plan
Albania	12 *	48½	44	80 *	16	18	10	11½
Czechoslovakia	31	52 [a]	. .	32	8 [a]	. .	12 [a]	. .
Eastern Germany	34	37	46½	21½	8	12	14	13½
Hungary	20½	47	44	44	16	18	6½	10
Poland	20	52	48½	55½	8	12	10½	14½
Rumania	. .	62½	58½	. .	10½	12½	4	5½
USSR	20½	47 [b]	49 [b]	42	17	18	15	15

Source : See Appendix B.

NOTE. — Investment only by the state in Albania, Czechoslovakia and Rumania. Total gross fixed investment (including private investment) in eastern Germany and Hungary. Investment by the state and collective (co-operative) farms in Poland and the Soviet Union. Building and construction industry is included in the figures for industrial investment, but not in those for employment.

[a] 1948–55.

[b] Not including investment in dwellings by industrial enterprises.

coming years when the small generations born during the war will be reaching working age.

The Allocation of Investment

According to the plans as originally published, each of the countries will continue to devote a very high share of investment to industry, although a fall in the proportion—as compared with the previous period—is planned in Albania, Hungary, Poland and Rumania (see Table 2). The Soviet plan, however, foresaw—at least in its first version—a slight relative increase from 47 to 49 per cent of total state investment. This is an extraordinarily large share (being something like half as much again as the share that can be regarded as typical of western European countries), and since the share of investment devoted to the development of Soviet agriculture and transport is not particularly low, rather less than one-quarter of the total remains for investment in services, housing and other social capital (i.e., about half to two-thirds of the proportion usually devoted to these sectors in western Europe).

The relative decline in industrial investment in most eastern European countries has its counterpart in the higher shares given to agriculture and housing. The planned increase in agricultural investment is considerable, both in absolute terms and in relation to the rise in investment in other sectors. In most cases, investment in agriculture is to take 12 per cent of the total, or even more in countries for which the figures quoted do not include private investment.[5] This is roughly the same share as that most often found in western European countries. But the level still seems to be fairly low, given the relative backwardness of agriculture in several of the eastern European countries and the large share of the total population occupied in the sector (Table 2). Although there is no reason to suppose that it would be either normal or desirable for agriculture to receive a share of investment corresponding to its share of the working population, the very wide gap between these two figures suggests that agriculture, or at least its private sector, still tends to be relatively short of investment funds, especially in those countries where the agricultural sector is largest. The Hungarian and Soviet plans are, however, exceptions, with agriculture absorbing 18 per cent of total investment—a high proportion by any standard.

Comparative Increases in Industrial Output, National Income and Real Wages

As has already been mentioned, total income is expected to increase in all the countries of eastern Europe at a lower rate than in the preceding period. The slackening of the expansion of industrial production alone is still more marked, and a substantial decline in the rate of growth is foreseen in every country, including the Soviet Union (see Table 3). In fact, the rate at which industrial output is expected to increase in the years up to 1960 is only moderately higher than the rate of increase foreseen for total national income. As compared with the preceding period, the rate of growth of industrial production

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[5] See footnote to Table 2.

TABLE 3

Increases in national income and industrial production, 1950 to 1955 and 1955 to 1960

Country	National income			Industrial production		
	Percentage increase over period		Percentage decline in rate of growth	*Percentage increase over period*		Percentage decline in rate of growth
	1950 to 1955 Actual	1955 to 1960 Plan		1950 to 1955 Actual	1955 to 1960 Plan	
Albania	70	53	24	179	91	49
Czechoslovakia	51	48	6	70	50	29
Eastern Germany	62	45	27	90	55	39
Hungary	36	40	10 [a]	102	47–50	51–54
Poland	55	50	7	118	53	55
Rumania	93	50	46	116	60–65	44–48
USSR	68	60	12	85	65	24

Sources : See Appendix B.

[a] Increase in rate of growth.

is expected to decline by 25 to 30 per cent in the Soviet Union and Czechoslovakia, and by as much as 40 to 50 per cent in the other countries. Even so, the planned increases in industrial production are remarkably high, ranging from 8½ to 11 per cent a year.

There are several factors which can help to explain the narrowing from one plan period to the next of the gap between growth rates for industry and for national income as a whole. First, it is reasonable to believe that in the past the total gross value of industrial production (on the basis of which production indices are calculated) has increased at a somewhat higher rate than net output, and that this upward bias will be smaller, or even negligible, in the period 1956 to 1960. Secondly, the increase in the size of the industrial sector naturally gives it an increasing weight in total national income. And, thirdly, agricultural output is everywhere expected to increase at a higher rate than that actually achieved between 1950 and 1955.

But these factors cannot altogether remove the impression that the increases in total national income in the period 1956 to 1960 as indicated in the plans are remarkably high in relation to the increases planned for industrial output. It seems that, taking the planned increase for industrial and agricultural output as given, the corresponding estimates of the growth of total national income may have some upward bias, probably stemming from the fact that the products of agriculture—a large sector with a comparatively low increase in output—are under-valued in relation to industrial products.

The impression that the growth of national income is somewhat over-estimated is practically confirmed by a comparison with the round estimates for the increase expected in real wages:

Planned Percentage Increases 1955 to 1960

	Total national income [a]	*Real income per head for*	
		Wage earners	*Agricultural earners*
Albania	53	25	38
Czechoslovakia	48	30	23
Hungary	40	25	25
Poland	50	30	30
Rumania	50	30	..
Soviet Union	60	30	40

[a] The figures are here presented as they are given in the plans—i.e., as percentage increases in *total* income expressed simply as round orders of magnitude. No attempt has been made by the secretariat to express the increases in terms of income per capita, since this might have lent to these estimates an impression of precision obviously not intended by the planning authorities.

In each of the countries, with the possible exception of Poland, the gap between the growth rates for real wages and for total national income seems to be wider than can be explained by an increase in the working population or by an increase in the share of national income devoted to accumulation.[5a] It may be suggested, therefore, in the absence of fuller information on how the planned increase in total national income is estimated, that the planning authorities themselves make some allowance for an upward bias in these figures when indicating the expected rise in real wages.

If this is so, it follows that the growth rates for national income given in the plans are not fully comparable with corresponding figures as calculated in other countries. But even if growth rates of 8–8½ per cent per annum should perhaps be reduced, for purposes of comparability with other countries, to, say, 6 per cent, this still indicates the expectation of a remarkably rapid rate of advance.

[5a] Nor is there any reason to think that public consumption (including defence expenditure) is planned to increase at a faster rate than personal consumption.

3. THE PLANS FOR AGRICULTURE IN EASTERN EUROPE

The agricultural plans—at least in their published versions—are less specific than the plans for industry. In many countries the plans give no more than summary indicators of the potentialities for growth in agricultural output as seen by the planning authorities. But all plans stress the need for particular efforts to stimulate agricultural production through increased investment and in other ways. As has often been pointed out, agricultural production has hitherto tended to lag behind the general economic development in eastern Europe. In most countries the agricultural targets of previous plans were far from being fulfilled, and this fact, together with a rapidly increasing urban labour force, has been the main cause of difficulty in securing a reasonable rate of increase of real wages.

Grain Areas and Yields

No major changes appear to be envisaged in the total area sown, except that a certain increase is hoped for in Poland, Rumania and Czechoslovakia through the ploughing-up of abandoned areas, the so-called " reserve land ".[6] As in most parts of the world, an increasing share of the total grain area is expected to be taken up by fodder grain, especially maize, and some measures are being taken to introduce more catch crops; but otherwise surprisingly small changes seem to be planned in the distribution of the sown areas among the main crops. In particular, there seems to be no intention to intensify the pattern of cultivation through a more varied crop rotation accompanied by higher yields and a reduction in the share of the area devoted to grain.

In Poland, the plan figures even indicate an increase in the share of grain from its already high level of 58 per cent to 60½ per cent of the sown area. It is, of course, essential to increase considerably the output of grain in Poland, which in recent years has been relying on imports of grain to an extent which seems abnormal in view of the vast grain area in relation to population and the not unfavourable natural conditions for growing grain. But it ought to be possible

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[6] In Albania, the sown area is to increase through the ploughing-up of rough pasture and drained marsh.

TABLE 4

Grain yields in eastern Europe, actual and planned

	Average 1953–55 Actual	1955 Actual	1960 Plan	Increase 1953–55 (Actual) to 1960 (Plan)	
	Quintals per hectare			*Quintals per hectare*	*Percentages*
Czechoslovakia					
Wheat	18.7	20.6	24.3	5.6	30
Rye	17.1	18.5	22.9	5.8	34
Barley	19.1	20.2	23.8	4.7	25
Eastern Germany					
All grains [a]	24.3	26.4	28.0	3.7	15
Hungary					
All grains [b]	15.6	16.8	16.6	1.0	6
Maize	23.7	24.3	26.7	3.0	13
Poland					
All grains [b]	12.7	14.3	14.9	2.2	17
Rumania					
Maize	18.3	24.8	20–23	1.7–4.7	9–26
Other grains	10.0 *	11.6	15.8	5.8	ca. 60

Sources: Plans and plan fulfilment reports, *Statistisches Jahrbuch der Deutschen Demokratischen Republik 1955*, p. 207; *Magyar Statisztikai Zsebkönyv 1956*; *Rocznik Statistyczny 1955* and *1956*; *Zycie Gospodarcze*, 19 August 1956; and in the case of Czechoslovakia, direct communication from the Government.

NOTE. — The figures refer to barn yield for Czechoslovakia, Hungary and Poland, and to biological yield for eastern Germany and Rumania.

[a] Maize included.

[b] Maize excluded.

TABLE 5

Production, trade and supplies of artificial fertilizer

Thousands of tons of plant nutrient

Country	1955 Actual			1960 Plan			Percentage increase 1955 to 1960	
	Production	Foreign trade and stock change	Supplies	Production	Foreign trade and stock change	Supplies	Production	Supplies
Czechoslovakia	159 [a]	167	326	297 [a]	186	483	87	48
Eastern Germany	1 929	−1 161	768	2 735	−1 631	1 004	42	31
Hungary	42	11	53	150	53	203	257	283
Poland	286	257	543	580	415	995	103	83
Rumania	*c.* 12	*c.* 12	24	*c.* 50	*c.* 16	66	*c.* 300	175

Sources : Plans and plan fulfilment reports.

[a] Excluding potassic fertilizer.

to achieve a considerable increase by improving yields, and one of the methods of increasing yields might well be to improve the crop rotation while somewhat reducing the grain area. However, it is possible that the figures for the grain area inscribed in the plan reflect the planning authorities' view of what is likely to happen rather than of what is desirable. Many of the plan figures for agriculture are normally forecasts rather than plans proper, and this is especially likely at the present time, when there is some uncertainty about the future scope of centralized planning in this sector.

Table 4 shows grain yields in or around 1960, as envisaged in the plans, together with actual average yields in the years 1953–55 and in 1955. In most countries, an increase of some 10 to 20 per cent is hoped for. Such an increase over a five-year period does not appear to be an unrealistic target and is comparable with rates sometimes forecast in those countries of southern and western Europe where there is considerable scope for increased use of fertilizer and improved seeds and for the development of hybrid maize.

The Rumanian target for grain other than maize seems, however, to be exceedingly optimistic. For maize, the target as shown in the table might appear more moderate; but the period—1953 to 1955—which has here been chosen for comparison included no bad and one excellent harvest. If the comparison were made with a more representative average, the target for maize would probably appear to be no less ambitious than that for other grain.

Little is known about the foreign trade implications of the eastern European grain targets for 1960. An early version of the Polish plan envisaged the maintenance of grain imports at their present high levels. This feature of the plan was sharply criticized, and the plan was subsequently modified in the direction of a higher target for grain output. The two countries most dependent on foreign supplies, eastern Germany and Czechoslovakia, do not seem to expect to reduce their import needs in the course of the plan period. Eastern Germany imported 1.3 million tons in the good agricultural year 1955/56, and will have to import roughly as much in 1960 if the grain target is reached. Czechoslovakia even counts on a significant increase in net imports, despite increasing yields. In this respect, Czechoslovakia is in a rather exceptional situation among European countries, almost all of which expect that future increases in domestic grain production will be at least sufficient to cover the rise in consumption.

Means of increasing Yields

The higher yields foreseen in the plans are to be brought about primarily through a considerable increase in the use of fertilizer. Table 5 shows that all the countries plan to increase fertilizer production very considerably; and imports are also expected to increase, though at a lower rate than before in every country except Hungary. The imports consist—and will continue to consist—mainly of eastern German potash. An expansion of exports of nitrogenous fertilizer from eastern Germany also seems to be planned, though this may prove difficult in view of the power shortage in that country.

The relative increase in the use of fertilizer is naturally greatest in those countries—Hungary and Rumania—where particularly small amounts have hitherto been used (see Table 6). But even so, there will continue to be very wide disparities in the use of fertilizer per hectare in the various countries. In fact, the planned absolute increase is greater,

TABLE 6

Deliveries of artificial fertilizer

Kilogrammes of plant nutrient per hectare of arable land

Country	1949/50 Actual	1955 Actual	1960 Plan	Average annual rate of increase	
				1949/50 to 1955 Actual	1955 to 1960 Plan
Eastern Germany	125	154 [b]	200	4	5
Czechoslovakia	25½ [a]	64	95	17	8
Poland	17½ [a]	35 [b]	63	12	12½
Hungary	4 [a]	10	35	16½	28½
Rumania	..	2.5	6.3	..	20½
USSR	6	9	16	7	12
France	48	72 [b]	..	8	..
Italy	23	45 [b]	..	14	..
Western Germany	147	210 [b]	..	2½	..
United Kingdom	124	117 [b]	..	−1	..

Sources: **Soviet Union:** Estimates based on data in *Narodnoe Khozyaistvo SSSR*, pp. 55, 105, 106. **Eastern European countries:** Plans and plan fulfilment reports; *Za Socialistické zemèdèlství*, Prague, No. 21, 1956, p. 1344; *Zycie Gospodarcze*, 19 August 1956; **Western European countries:** *Agricultural and Food Statistics*, OEEC, and *FAO Yearbook*.

[a] 1948/49. [b] 1954/55.

the higher is the actual level of fertilizer consumption in 1955.

If the planned increases are achieved, the amount of fertilizer used in Czechoslovakia and Poland will reach a level comparable with that of western European countries, while Hungary and Rumania will still lag far behind. Eastern Germany, as a major producer of fertilizer and with a relatively intensive agriculture, is in a category of its own.

In comparison with the fertilizer programme, the plans for land amelioration are probably less important. It is worth mentioning, however, that Albania, Czechoslovakia and eastern Germany plan to carry out drainage works on areas corresponding to as much as 19, 18 and 15 per cent, respectively, of their total arable land.

The Rate of Mechanization

The number of tractors in use in eastern European countries increased remarkably in the period from 1950 to 1955. In fact, the rate of increase, around 20 per cent annually, was no less than that typical in western European countries during this period of rapidly spreading use of tractors (see Table 7). Nevertheless, the number of tractors per unit of land remained everywhere, except in eastern Germany, far below the level generally found in western Europe.

The Polish plan for the period 1956 to 1960 foresees almost a doubling of the number of tractors in use, though the tractor density will still be less than half the present French figure; and some improvement in the utilization may be expected from a better distribution of the available stock. The Hungarian plan also seems to imply a rapid increase in the stock of tractors,

TABLE 7

Stock of tractors in eastern Europe and in some western European countries

Country	Average annual increase in stock of tractors *Percentages*		Stock of tractors per thousand hectares of agricultural land *No. in terms of 15 hp units*	
	1950–55 Actual	1955–60 Plan	1955 Actual	1960 Plan
Albania	41	16	3 [a]	5 [a]
Czechoslovakia	6½	..	5½	..
Eastern Germany [b]	26½	7	12 [c]	16
Hungary [b]	14½	..	2	..
Poland	20½	15	3	6
Rumania	18½ [d]	4½	2½	3 [e]
USSR	9	..	6	..
France	16	..	15	..
Italy	22½	..	14½	..
Western Germany	23	..	43	..
United Kingdom	6	..	44½	..

Sources: See Appendix B.

[a] Per thousand hectares of sown area.

[b] Stock in MTS only.

[c] Total stock of tractors (including stock in private and co-operative farms) per thousand hectares of agricultural land is 20.

[d] 1949–55.

[e] Refers to state farms and MTS.

TABLE 8

Planned increases in output of main animal products

Country	Percentage increase in output 1955 to 1960				Output per head of population [a]			
	Meat [b]	Milk	Eggs	Wool	Meat [b] *Kilogrammes*		Milk *Litres*	
					1955 Actual	1960 Plan	1955 Actual	1960 Plan
Albania	53	40	157	36	..	..	..	..
Czechoslovakia	36	46	21	36	58	76	260	360
Eastern Germany	19	40	..	15	66 [c]	78 [c]	285	400
Hungary	29	33	29	50	86	106	150	195
Poland	24	30	..	54	62	71	350	420
Rumania	63	35	..	..	46	71	105	135

Sources: Plan documents and plan fulfilment reports.

[a] The figures for 1960 are based on a rough estimate of the increase in population from 1955 to 1960, as follows: Czechoslovakia, Hungary and Rumania: 5 per cent; Poland: 7.5 per cent; and no change for eastern Germany. No allowance has been made for the recent emigration from Hungary.

[b] Live weight.

[c] Poultry meat included.

while the increase in eastern Germany, Rumania and probably Czechoslovakia, will be far more modest.[7] Though deliveries of new tractors in these last three countries are planned to increase considerably over the preceding period, replacement needs are so great that there will be little room for net additions to the stock. It is surprising, in particular, that no very large increase in the number of tractors in use is envisaged in Czechoslovakia where the shortage of young labour in agriculture gives rise to much concern.[8]

Plans for Livestock Production

The plans for output of the main animal products are shown in Table 8. Since a big increase is expected in the output of coarse grain, the rise in meat production is probably meant to consist largely of pork and poultry. However, it is known that the Polish plan envisages a rather large increase for beef and veal, the fodder basis of which is to be provided by drainage and irrigation of meadows and pastures.

These plans, if fulfilled, would bring output of meat per head of the population to very nearly the same level—70 to 75 kilogrammes in terms of live weight—in Czechoslovakia, eastern Germany, Poland and Rumania, although in Rumania this would require the achievement of a target which seems to be extremely ambitious. In Hungary, meat output would continue to be at a considerably higher level than in the other countries of the region. These figures obviously do not reflect the present or prospective levels of meat consumption. Czechoslovakia and eastern Germany import meat and would probably continue to do so, while Poland, Rumania and especially Hungary, normally export part of their output.

Everywhere, except in Rumania, milk production is expected to increase even faster than meat production. Since there is no indication in the plans of big increases in the output of fodder crops other than grain, this rapid rise in milk production will have to be achieved largely through better conservation of fodder and more rational feeding, including a better adaptation of the number of cows to the fodder available. The increase in milk output is planned to be brought about partly by an increase in the number of cows, at the fairly high rate of 3 per cent annually; and the planned increases in milk yield per cow appear to be relatively modest, except in Czechoslovakia where the emphasis is on yields, rather than cow numbers. It may well be realistic, therefore, that the Czechoslovak plan foresees a higher rate of increase in total milk output than do the other plans (Table 9). It may be questioned whether a better result in terms of total milk output could not be achieved in the other countries if cow numbers were to increase less rapidly.[9]

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[7] The Hungarian and Czechoslovak plans do not indicate the planned stock in 1960. A rough impression can be gained from the figures for the stock at the end of 1955 and the planned deliveries during the years 1956 to 1960:

	Stock 1955	*Deliveries 1956–1960*
	Thousands, in 15 hp units	
Hungary	13.5 [a]	19.0
Czechoslovakia	40.0	36.3

[a] Stock in MTS only.

[8] In order to encourage young labour to remain in agriculture, at least for some years, boys of 14 years of age are given full membership rights in co-operative farms in Czechoslovakia.

[9] For further discussion of the problem of under-feeding of cows in eastern Europe and the Soviet Union, see *Economic Bulletin for Europe*, Vol. 8, No. 3.

The Social Structure of Agriculture

Four countries have indicated the extent of the change that can be expected in the social structure of agriculture during the period 1955 to 1960:

Share of Socialized Sector in Total Farm Land

Percentages

	1955, Actual		*1960, Plan*	
	State farms	*Co-operatives*	*State farms*	*Co-operatives*
Albania	8	13	..	85
Czechoslovakia	11	31	14	66
Hungary	32		50	
Rumania	35		65	

Since these plans were drawn up, the prospects for further collectivization of agriculture have been radically changed by the recent political events in eastern Europe. Indeed, in Hungary and Poland, the share of the socialized sector may now be more likely to decline than to increase in comparison with the level attained in 1955. For the other countries, too, the figures cited above should perhaps be regarded as indicators of expectations early in 1956 rather than as present prospects. Clearly, the aim of socialization in agriculture has not been given up; but the speed with which it is to be carried out depends on the emphasis to be laid on raising output in the short run by encouragement to private farming—a problem which is now being reconsidered in some countries.

Table 9

Planned changes in cow numbers and milk yields

Country	Milk yield 1955 *Litres*	Percentage increase 1955 to 1960		
		Number of cows	Milk yield	Milk output
Albania	..	16	22	40
Czechoslovakia	1 619	5	39	46
Eastern Germany	2 450	14	23	40
Hungary	1 704	13	18	33
Poland	1 763	15	13	30
Rumania	850	5	29	35

Sources : Plan documents.

4. The Soviet Plan for Agriculture

The increase in grain output, and in agricultural production generally, foreseen in the Sixth Five-year Plan of the Soviet Union is of an order of magnitude quite different from the forecasts made in the countries of eastern Europe. According to the plan directives, gross agricultural output in 1960 is to be 70 per cent higher in 1960 than it was in 1955.[10]

The Grain Target

The achievement of the over-all target depends essentially on success in reaching the target for grain output, which calls for a barn crop of 180 million tons in 1960. It is difficult to judge the true significance of this figure, since the actual harvest in 1955 has not been made known. Various indirect statements suggest that it was probably between 105 and 110 million tons.[11] Thus, the 1960 target seems to imply an increase, over a five-year period, of some 70 million tons, or two-thirds. If this immense increase in the basic crop were actually achieved, it would entail a thorough change in the structure of agricultural production and permit a remarkable improvement in food consumption standards.

In a country with an already well-developed system of farming, such an increase could be dismissed as wholly impossible. Moreover, the fact that similarly large increases in agricultural output have been planned—but never achieved—in each of the preceding Soviet Five-year Plans could also cast some doubt on the realistic nature of the objectives. In the Soviet Union, however, there have been, and still are, four major factors which could permit substantial increments in output in the relatively short run: virgin land is available to be taken under plough; average yields in terms of the standing crop are low; the sowing pattern can be changed in favour of higher-yielding grains; and very large harvest losses seem to be incurred under present conditions.

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[10] For details of the component targets, see Appendix. Tables XXIV and XXVI.

[11] E. Chekmenov, writing in *Planovoe Khozyaistvo*, No. 2, 1956, p. 47, quotes the Kazakh grain crop as 4.5 and 12.9 per cent of the total Soviet crop in the 1955 and 1960 Plan respectively. As the total Soviet crop in 1960 is planned at 11 billion puds, the Kazakh target would appear to be 1.42 billion puds; the Five-year Plan Directives state the grain increase planned for Kazakhstan to be " approximately five times ". Assuming the precise ratio to be between 4.7 and 4.9 times, a 1955 Kazakh crop of 0.29 to 0.30 billion puds may readily be computed, implying a 1955 Soviet crop of between 6.4 and 6.7 billion puds (105–110 million tons). An article by I. Yakovlev in *Pravda*, 20 April 1956 confirmed that the Kazakh 1960 target was 1.4 billion puds. The estimate of 129 million tons for the 1955 crop given in the last Survey (p. 192) is thus seen to be too high; revised estimates of the grain crop in the years 1950 to 1954 may be derived from a series of index numbers published in *Narodnoe Khozyaistvo SSSR*, p. 101, reproducing the series quoted in *Pravda*, 15 February 1956, and used for the estimates of those years in the Survey for 1955. All the data quoted are known to be in terms of barn crop.

Little information of a quantitative nature has been published in the USSR upon the contribution of each factor to the overall expansion of grain output. On the basis of these statements, an attempt is made in the following paragraphs to appraise the chief elements entering into the 1960 target of 180 million tons. Since no figures have been released on the planned grain area, the crop in the base year, or the regional distribution of any of the components other than the 1955 maize area, the estimates, based upon numerous references to targets for various of the republics, are necessarily rough. Table 10 shows the summary results of this exercise, the purely illustrative purpose of which need not be stressed.[12]

In 1955, 18.5 million hectares of virgin land, mainly in Kazakhstan and Siberia, had been sown to grain. By the end of 1956, 35.5 million hectares in all had been ploughed and some further expansion was proposed for 1957 and 1958. Not all of this land, of course, was sown to grain, but it is likely that the 1960 target for grain output in these new areas envisages an " average " crop [13] over an area perhaps as much as two-thirds greater than was sown in 1955. Much of the virgin soil to be sown to grain during the Five-year Plan is in the regions between the present " virgin lands zone " and the Pacific.[14] It seems that the grain area of the Soviet Union is probably planned to be about 150 million hectares by 1960. This would represent an addition of 20 per cent to the area sown to grain in 1955. The average yield on this extra land would be somewhat below the all-Union average, but it may be estimated that it is planned to bring in something like 22 to 26 million tons of grain.

The second factor to be taken into account is the possibility of increasing average yields in the traditional grain-growing regions. It seems to be envisaged that grain yields will improve by perhaps one-tenth (or some 11 to 15 million tons of crop), which does not seem unrealistic in the light of plans for improvements in the methods of cultivation.[15] The most important element in improving yields is probably the increased use of fertilizer. This is planned to be raised from 8.7 to 15.5 kilogrammes of plant nutrient per hectare of arable land; but even then, the consumption of fertilizer would remain at a level far below that of most other European countries. Supplies of selected seeds are to be increased and the quality improved,[16] and, finally, plans have been made for irrigation in the dry grain-growing regions.

In addition to the return from higher yields of given kinds of grain, a considerable increase in total output can be expected also from the devotion of a larger share of the grain area to maize and sorghum, which, under otherwise equal conditions, give a higher yield per unit of land than small coarse grains. The maize area is to increase from 9 million hectares in 1955 to 28 million hectares in 1960,[17] and the net increase attributed to this transfer (i.e., assuming unchanged yields) may be of the order of 13 million tons of grain.

These changes in sown area, in average yields and in sowing pattern may thus together account for about 50 million tons of the increase of 70 million tons which seems to be implied by the 1960 grain target: this would leave roughly 20 million tons to be gained through a reduction of harvest losses.[18]

Soviet spokesmen and agronomists have frequently commented on the immense losses ordinarily incurred

TABLE 10

Elements in the Soviet Five-year Plan for grain

Rough estimates

	Area sown *Millions of hectares*		Barn yields *Quintals per hectare*		Barn crop *Millions of tons*	
	1955 Actual	1960 Plan	1955 Actual	1960 Plan	1955 Actual	1960 Plan
Maize . . .	9	28	15.5	16.8	14	47
Other grain	117	124	8.0	10.7	94	133
TOTAL . . .	126	152	..	..	108	180

NOTE. — The regional components of the figures in this table are shown in Appendix B, together with an explanation of the sources and methods used.

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[12] Further details, with a break-down by the main grain-producing republics, are given in Appendix B.

[13] In 1955, the crop on the newly ploughed land was poor (little more, it would seem, than 4 q/ha) but in 1956 about 11 q/ha, a very good crop for the area, was obtained. The concept of an " average " crop for these areas is somewhat notional as yields seem rather to fluctuate between very good and very bad.

[14] These are the additions to the grain area envisaged for the years up to 1960. Beyond this, further possibilities are thought to exist. Academician Nemchinov estimates that in the long run the cultivated area can be increased by 74 million ha over the area sown in 1955. (*Planovoe Khozyaistvo*, No. 4, 1955, p. 65).

[15] A more moderate view is now taken of the speed with which yields can be increased than was the case in 1952, when an increase by 40 per cent, to be achieved by 1955, was planned. The actual increase was only 5 per cent, although 1955 was a reasonably good year.

[16] The most significant measures in this field are the establishment of agricultural research stations in every administrative oblast and the provision of more than one type of seed in each zone.

[17] A further 9 million hectares were sown in 1955 for silage and green fodder. It is assumed, on the evidence of the immense increase in the share of maize in the R.S.F.S.R. grain crop (from 6 per cent in 1955 to 25 per cent in 1960, according to M. A. Yasnov, *Pravda*, 23 February 1956), that the 1960 maize target as published in the directives relates only to sowings for grain.

[18] A. I. Kirichenko (*Pravda*, 20 February 1955), First Secretary of the Ukrainian Communist Party, stated that harvest losses in the Ukraine should decrease by 1960 by 1.2 q/ha.

by late harvesting.[19] For example, the Minister of State Farms reported that on experimental plots losses amounted to 20 to 25 per cent of the crop when harvesting took place within 10 days after grain maturity, one-third 15 days after, and over one-half 20 days after maturity.[20] Mr. Khrushchev has cited similar data and stated that about a quarter of the crop was being lost solely as a result of harvesting delays.[21] It is understood that the average harvest period in 1954 was 34 days: by 1960 this period should be cut to 10 days in the European part of the country and 7 to 8 days in Siberia, Kazakhstan and the Far East.

Two measures should help to reduce these surprisingly high harvest losses. First, very much more harvesting equipment is to be delivered.[22] Not only are the combines expected to harvest more efficiently than simple harvesters or reaper-binders, but the grain will remain more strictly under the control of the machine-tractor stations and thus be less depleted by misappropriation. At the same time the existing equipment park should be better used as stocks of spare parts improve. Secondly, collective farmers should become more concerned with bringing in as much as possible of the crop now that compulsory deliveries and payment for the services of machine-tractor stations are a fixed amount and do not vary with the size of the harvest.[23]

This discussion of the main elements in the Soviet grain plan suggests that it is largely based on expected increases in area and changes in sowing pattern whereas the contribution expected from higher yields of given kinds of grain appears to be relatively modest. Therefore, as far as natural conditions are concerned there seems to be no reason to doubt that the target could be reached, provided that other pre-conditions are present. Considerable investments and deliveries from the industrial sector will be required to support the drive for higher yields and to make possible the further large extension of the sown area. But it will probably be even more important to overcome weaknesses in the internal organization of Soviet agriculture which seem hitherto to have entailed a striking inefficiency in harvesting.

Livestock Production

The enormous increase planned for grain output is meant to provide the basis for a considerable increase in the output of animal products. The targets for the main products are shown below:

Plans for Livestock Production in the Soviet Union

	Unit	*1955 Actual*	*1960 Plan*	*Planned increase* (per cent)
Milk	Millions of tons	44	82	95
Meat	..	..	..	100
Eggs	..	..	..	154
Wool	Thousands of tons	252	459	82

Sources: Plan directives; Milk: direct communication by the Soviet Government to ECE; Wool: index given in *Narodnoe Khozyaistvo SSSR*, p. 101 applied to base in *Sovetskaya Zootekhnika*, No. 7, 1951.

In the absence of data on the composition and use of fodder supplies, it is not possible to judge the consistency of these targets with that for grain output. If the grain plan is fulfilled, the supply of feed grain alone in 1960 will be three to four times the 1955 quantity. It is therefore natural that a particularly strong increase is planned for egg production, and it is clear that the increase in meat output is to be very largely concentrated on pork. It may well be possible, by better feeding, to step up considerably the milk yields of cows on collective farms and state farms; but, even so, the plan to increase milk yields to such an extent that total milk output can be raised by 95 per cent seems extremely bold. However, it is difficult to form an opinion on the likelihood of this target's being fulfilled, because the Plan Directives give no information either on the number of livestock foreseen for 1960, or on the feeding policies to be pursued. Nor is anything known of future policy towards milk production on the tiny private holdings of collective farmers and others, which accounted for 57 per cent of the total number of cows at the October 1955 census.[24]

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[19] There is also some evidence of this in the great disparity between official crop figures in terms of biological yield and of barn yield. A comparison of the newly available estimates of grain output in terms of barn crop shows that for 1950 and 1951 the contemporary estimates by the Soviet Crop Estimating Inspectorate of the biological crop were nearly one and a half times the present estimates of the barn crop for those years. It may, however, be asked whether this difference of statistical estimates cannot be partly explained by other factors than genuine harvest losses. On the one hand, the size of the biological crop may have been somewhat inflated by the Inspectorate as part of a policy of increasing compulsory delivery quotas, which at that time were a function of yields, or estimates have been falsified by farms desiring to show a fulfilment of plan. On the other hand, the recorded barn yield may have been reduced by concealment and pilfering.

[20] I. Benediktov, *Sovkhoznoe Proizvodstvo*, No. 6, 1956, p. 9.

[21] *Pravda*, 3 February 1955.

[22] Supplies of combines are to be 2½ times as great as in the preceding five-year period, combine pick-ups 4 times as great, and 180,000 windrowers (for two-stage harvesting) are to be supplied, whereas virtually none were previously produced.

[23] Changes in the systems of remuneration should work in the same direction: pay-rates on a scale diminishing with the length of the harvest period should encourage MTS workers to reduce the period of harvesting, and directing personnel (collective farm chairmen and State farm managers) now have scales of bonus varying with the barn yield. It has further been proposed that collective farms include a penalty clause in their contracts with MTS, to become effective if the harvest is not gathered within a stated period. (On this last point, see A. Borisov in *Sovetskoe Gosudarstvo i Pravo*, No. 3, 1955, p. 29).

[24] Heavy taxes were imposed upon livestock owned by urban dwellers in 1956; cows owned by workers comprised 15 per cent of the country-wide total. These measures are, however, believed to be temporary.

5. THE PLANS FOR INDUSTRY

Industrial Output and Investment

Although, as has been mentioned earlier in this chapter, industrial investment is in most of the countries to be a smaller share of total investment than in the preceding plan period, it is envisaged to increase very considerably in absolute volume. This increase seems indeed to be necessary in view of the extremely ambitious plans for industrial production, and especially for industrial output per man.

One circumstance does, however, somewhat reduce the investment required for a given increase of output in the current plan period: some very big projects, begun but not completed under the previous plan, will come to fruition in the early part of the period 1956 to 1960. The steelworks of Nowa Huta in Poland and Dunapentele in Hungary are prominent examples. At the same time, a relatively small number of new big industrial projects is to be begun under the new plans.[25] Thus, there was a real bunching of completions of major industrial constructions at the transition from one plan period to the other, so that the investment cost of the increased output planned for the years 1956 to 1960 has to some extent been paid in advance.

On the other hand, the increase in the industrial labour force is expected to be much smaller than it was in the preceding period, and very considerable investment in equipment to raise output per man is therefore necessary. It also appears that in past years the investment effort was so highly concentrated on raising employment capacity that the renewal of equipment had to be neglected, with the result that there is now a backlog to be dealt with.

An attempt is made in Table 11 to relate the programme for industrial investment to the target for industrial output. The increase from one period to the next in the amount of investment is compared, in a rough and ready manner, with the increment of industrial output in each of the two plan periods.[26] Although the actual investment/output ratio for industry cannot be derived in this way, it is possible to estimate the percentage change in the ratio from the average of the period 1951 to 1955 to the period 1956 to 1960.

It appears from the last column of the table that a fairly considerable rise in the investment/output ratio is foreseen in the Soviet Union, Poland and Rumania. In other words: the plans do make allowance for some increase, as compared with the preceding plan period, in the amount of investment that is necessary to bring forth a given rise in output. In eastern Germany the increase allowed for is very considerable, which is not surprising, since, as has already been mentioned, the increase in eastern German industrial production in the preceding period of reconstruction was obtained at a very low price in terms of investment. In Hungary, on the other hand, the planned increase in industrial output, though

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[25] This is a particularly striking feature of the Plan for Albania, where a virtual stoppage of the construction of new industrial enterprises is envisaged for the new plan period. Nevertheless, industrial output is expected nearly to double as a result of the improvement and better utilization of capacity already completed.

[26] For both periods, the increments are measured as a percentage of total output in the same year (1955), so as to make possible a comparison of their actual sizes.

TABLE 11

Planned industrial investment and planned increase in industrial output

Country	Gross fixed investment in industry, 1956–60 *Total for 1951–55 = 100* (1)	Increment in industrial output as percentage of output in 1955		Percentage increase in investment/output ratio [a]
		1950 to 1955 (2)	1955 to 1960 (3)	1951–55 to 1956–60 (4)
Czechoslovakia	. .	41	50	. .
Eastern Germany	233	47	55	98
Hungary	104	50½	47–50	11
Poland	133	54	53	35
Rumania	160	54	60–65	38
USSR	170	46	65	20

Sources: See Appendix B.

[a] $\left(\frac{\text{col. 1}}{\text{col. 3}} \times \text{col. 2}\right) - 100.$

TABLE 12

Planned increase in production in existing plant

	Increase 1955 to 1960 in output from already existing plant, as percentage of:	
	Total increase in output	Total output in 1955
Czechoslovakia		
Rolled steel products	100	47
Nitrogenous fertilizer	41	55
Phosphorous fertilizer	100	59
Cement	100	56
Hungary		
Open-hearth steel	30	11
Machine tools	80	67
Combine harvesters	70	44
Woollen cloth	90	32
Sugar	70	46
Rumania		
Pig iron	17	17
Crude steel	22	24
Rolled steel products	70	62
USSR		
Rolled steel products	40	21
Hydro-turbines	54	39
Electric locomotives	40	73
Motor vehicles	55	25
Tractors	69	67
Cement	32	46
Woollen cloth	39	18
Linen cloth	56	46
Sugar	63	57

Sources : Plan documents.

NOTE. — The table shows only a number of important commodities selected from more complete lists published in plan documents. In eastern Germany it was explicitly stated that the increase in the output of pig-iron and steel is to be obtained almost entirely in existing plant.

lower than in the other countries, seemed to be particularly optimistic, since it was apparently to be brought about with only a marginal increase in industrial investment and with a far smaller increase in the labour force than in the preceding period.

While the plans thus allow for the need for more investment per unit of additional output, they also show awareness of the necessity to save capital wherever this may be possible. One problem which is repeatedly stressed is that of increasing the degree of utilization of the industrial capacity already in existence. Surveys have been made in several countries of the possibilities of expanding production within the framework of existing establishments, and, in many cases, more than half of the planned total increase in output is expected to be brought about in this way (see Table 12).[27] In the same effort for a more intensive utilization of existing capacities, the plans for industrial construction works have been overhauled with a view to cancelling some projects in order to be able to hasten the commissioning of others.

But whatever may be the possibilities of reducing the amount of new industrial construction necessary to achieve a given increase in output, the main problem, in view of the manpower situation, is how to achieve a fuller utilization of the available labour.

Targets for Output per Man

The increase in the industrial labour force foreseen for the period 1956 to 1960 is in every country much smaller than that actually achieved in the preceding period (Table 13). This is to be explained by two circumstances. The first is that the possibilities of large-scale transfers of labour from the countryside are largely exhausted, and future transfers will have to proceed at a considerably slower rate than in the past. In most of eastern Europe, the limit to the rate at which transfers can take place seems at the present stage to be set, not by the possibilities of releasing manpower from agriculture without adverse effects on agricultural output, but rather by the capacity for its absorption in urban occupations and by housing shortage in the big towns after the rapid

TABLE 13

Percentage increases, actual and planned, in industrial employment, output per man and output

Country	Period	Employment	Output per man	Output
Czechoslovakia	1950–55, Actual	13	50	70
	1955–60, Plan	6½	41	50
Eastern Germany	1950–55, Actual	29	48	90
	1955–60, Plan	3	50	55
Hungary	1950–55, Actual	53	32	102
	1955–60, Plan	9	36	47–50
Poland	1950–55, Actual	37	59	118
	1955–60, Plan	13	35	53
Rumania	1950–55, Actual	46	48	116
	1955–60, Plan	10	45–50	60–65
USSR	1950–55, Actual	29	44	85
	1955–60, Plan	10	50	65

Sources : Plan documents and plan fulfilment reports.

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[27] In considering these figures, it must be remembered that industrial capacity is notoriously difficult to define and measure statistically.

inflow of population in the preceding years.[28] Even so, it is somewhat surprising that in Rumania, with a relatively small industrial sector and much overcrowding in agriculture, the industrial labour force is expected to increase by no more than 10 per cent in the course of five years.

The second factor accounting for the slower growth of the industrial labour force is the fact that in the years from 1955 onwards the small generations born during the war will be reaching working age. This factor is not important, it seems, in Czechoslovakia; but the possibilities of a net transfer of labour from Czechoslovak agriculture are at present thought to be practically non-existent. In the USSR, the decline in the number of young entrants to the labour force will be very marked,[29] and, moreover, some withdrawals of older workers from the labour force will result from the improvement in old-age pensions.

It follows that in future a far larger share of the total increase in output will have to be brought about through increases in output per man. In fact, the planned rise in output per worker employed is in some of the countries as high as, or even higher than, the very considerable increases reported for the preceding plan period. The optimistic view of the future rise in productivity implied in plans for the building industries is illustrated by the following figures:

Building and Construction

(Percentage increase, 1955 to 1960)

	Employment	*Output per man*	*Output*
Czechoslovakia . .	14	53	74
Eastern Germany .	3	50	55
Poland	12	40–45	57 62
Rumania	..	50–55	..
USSR	14	52	73

Sources : Plan documents and *Voprosy Ekonomiki*, No 11, 1956, p. 20.

The answer to the question whether the plans as a whole are likely to be fulfilled—in something near their original shape—depends essentially on whether the targets for industrial output per man, together with the main agricultural targets, are likely to be reached.

Each plan shows awareness that the productivity target is ambitious and proposes special measures for reaching it through mechanization and modernization, especially of particularly arduous and labour-consuming processes.

It is further hoped to achieve great improvements in output per man employed by more flexible methods of planning and economic administration and as a result of enhanced efforts by the individual worker. The first problem is primarily that of avoiding the stoppages for lack of raw materials or fuel, of which there has been much complaint in recent years. The second problem is largely that of rationalizing wage systems, which has been discussed at some length in the preceding chapter.

Finally, in setting the high targets for output per man in industry, the planning authorities were influenced by their expectations of benefits to be derived from a more intricate pattern of specialization following international co-ordination of the economic plans.

Output of Consumers' Goods and Producers' Goods

The relation between the increase in the output of consumers' goods and of producers' goods from manufacturing industry is likely to reflect to some extent the changes in the over-all rate of investment. However, the significance of the figures shown in the first two columns of Table 14 can easily be exaggerated.[31] In particular, there is no good reason why, for industry or any other sector taken separately, the rates of increase of the two kinds of output should necessarily be equal in periods of unchanged over-all rates of investment.[32] With this reservation, it may be noted that, in comparison with the preceding period, the discrepancy between the growth rates for the two groups of commodities is planned to narrow somewhat in Czechoslovakia, Hungary and Poland, while in eastern Germany the gap is planned to widen considerably, as a corollary to the planned increase in the rate of investment.[33]

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[28] Thus, the necessity to concentrate on labour-saving investment in the new plan period is partly an effect of the relative neglect in past years of investment in housing and other social amenities necessary for sustaining a rapid growth of the urban labour force.

[29] The number of pupils in Soviet schools, which was 33.3 million in 1950/51, had dropped to 28.2 million in 1955/56. In eastern Germany, at the end of 1955, the number of young people of age 14 to 18 was 1.6 million, while the 5-year group aged 9 to 13 numbered only 1.1 million.

[31] Such data would be more revealing if it were possible to distinguish, even if crudely, within the group of producers' goods between materials and equipment, and within each of these sub-groups between commodities for further use within and outside the sector of manufacturing industry. There seems to be a growing interest among Soviet statisticians in such more refined analysis. See, for instance, the reference to the practical value for planning purposes of input-output analysis by the Head of the Central Statistical Administration of the USSR, Professor V. Starovsky, in *Vestnik Statistiki*, No. 2, 1956.

[32] This is true even apart from the incidence of foreign trade. For instance, if industry is given the task of supplying sharply increasing amounts of fertilizer for agriculture—as is the case in all the long-term plans dealt with here—industry's output of producers' goods would to that extent tend to increase faster than would output of consumers' goods.

[33] The figures for eastern Germany can be considered as only rough indicators because the methods and price-weights used in the calculation of indices of gross industrial production were changed considerably between the two quinquennia.

TABLE 14

Employment, investment and output in light industry as compared with heavy industry

Country	Ratio of percentage increase in output of consumer goods to percentage increase in output of producer goods [a]		Light industry as a percentage of all industry		
	1951–55 Actual	1956–60 Plan	Employment 1955	Investment	
				1951–55 Actual	1956–60 Plan
Czechoslovakia	0.60	0.70	42	20 [b]	. .
Eastern Germany	0.90	0.65	38	17	. .
Hungary	0.50	0.65	34	9.5	13.6
Poland	0.80	1.00	32	. .	. .
Rumania	0.75	0.70	. .	11.7	10.3
USSR	0.85 [c]	0.85	26	10.9	11.0

Sources: Plan documents, plan fulfilment reports and statistical yearbooks.

[a] Rounded to the nearest multiple of 5.

[b] 1948–55.

[c] This figure for the 5-year period as a whole is the resultant of approximately equal rates of increase in the four years 1951 to 1954, and a divergent movement in 1955.

The table shows also the share of total industrial investment devoted to " light ", as distinguished from " heavy " industry, and the share of light industry in total industrial manpower is also shown for comparison. In the Soviet Union and Rumania the share of " light " industry in total industrial investment is planned to remain at the same level—some 10 per cent —as in the preceding period. In Hungary the percentage was planned to increase from 10 to 14, and it is likely that a similar increase was envisaged in Poland.

At first sight, these percentages may appear startlingly low. It would, however, be rash to conclude that they bear witness to a distorted structure of industrial investment, given the over-all rate of accumulation for the community as a whole and the structure of foreign trade. For one thing, the distinction between " light " and " heavy " industry is not identical with that between industries producing consumers' goods and producers' goods: a considerable part of the production of consumers' goods (mainly consumers' durables) is grouped with heavy industry, and the same is certainly true of much of the production of military equipment which is, in the economic sense, for consumption.[34] Secondly, the degree of capital intensity is normally higher in " heavy " than in " light " industries, and, on this score, the latter must necessarily receive a share of total industrial investment which is considerably lower than their share of industrial manpower.[35] For eastern Germany, however, more detailed statistics are available.[36] These show that industrial investment in this country is so highly concentrated on basic industries as to suggest that, even given the major aims of economic policy in eastern Germany, resources for industrial investment have not been distributed to the best advantage.

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[34] On the other hand, only few producers' goods are produced in " light " industries. Incidentally, the disparity between the two classifications will increase during the coming 5-year period as more consumers' durables are produced by the engineering industries.

[35] If the amount of capital per worker were assumed to be three times as high in " heavy " as in " light " industry, the latter's share in industrial investment in the Soviet Union and Hungary, as shown in Table 14, would very nearly correspond to a proportionate development of the capital structure of the two groups of industry.

[36] The degree of capital intensity in 1955 in the main groups of centrally managed state industries in eastern Germany may be illustrated by the following figures:

	Percentage share in					*Index of fixed capital assets per employee, 1955. (Average for all groups = 100)*
	Production	*Employment*	*Stock of fixed capital assets (net)*	*Gross fixed investment*		
	1955	*1955*	*1955*	*1951–55*	*1955*	
Basic industries .	39	32	65	68	78	203
Metal-using industries	31	40	21	15	9	52
Light industries .	20	24	9	6	8	37
Food industries .	10	4	5	11	5	125
Total	100	100	100	100	100	100

Source: Statistische Praxis, No. 6, 1956.

It will be seen that the concentration of investment on basic industries has been increasing and the little qualitative information released on the Second Five-year Plan seems to point to a further increase. It must be added that the figures given above even tend to over-state the of " light " industries relative capital-intensity, since they do not include the less capital-intensive branches of light, and especially food, industries, which are not centrally managed.

The Steel Industries

For the region as a whole, as well as for the Soviet Union and eastern Europe taken separately, the output of crude steel is planned to increase by slightly more than 50 per cent (see Table 15). This rate of increase is not much below that actually achieved in the preceding five-year period. The rate of increase for pig iron is somewhat higher, which indicates an expected decline in the relative importance of scrap as a raw material in steel-making.[37]

In the eastern European countries, relatively few new steel plants are planned to be constructed (as is also the present trend in western Europe) and the increase in output is to be brought about largely through the completion of projects already under way, through a better utilization of existing capacities, and through an expansion of the capacity of existing plant. In the Soviet Union, on the other hand, more than half of the addition to output is expected to come from new plants.

All the countries, with the exception of the Soviet Union, are faced with some difficulty in raw material supplies for their steel industries. Poland and Czechoslovakia, both of them important producers of coke, are short of high-quality iron ores, while eastern Germany, Rumania and Hungary suffer from the lack of both ores and coking fines. Production in eastern Germany (and to a more limited extent in Hungary) of coke from brown coal is relatively costly, and the lack of high-grade ores implies either high transport costs—unless the ores can be imported by waterway[38]—or high smelting costs because of the extra coke required. The emergence of Bulgaria as an iron-ore producer of some importance may help to lower production costs for steel in Czechoslovakia and Hungary, since ore can be brought from Bulgaria to these countries on the Danube. Export availabilities of Bulgarian ore will depend, however, on policies of steel production in that country.

As a result of the difficulties just mentioned, the cost of producing steel is probably higher in Poland and Czechoslovakia than in the Soviet Union, and is higher still in eastern Germany and Hungary. It might seem, therefore, that—even if the aim of self-sufficiency in steel for the region as a whole is accepted—there would be an advantage in stepping-up the expansion of output in some countries at the expense of a slowing-down in others with particularly high production costs, and in relying more on trade in steel within the region.

The planned rates of increase for the period 1955 to 1960 show no evidence of a differentiating policy of this kind. It must be remembered, however, that any interest in co-ordinated planning with a view to international specialization is of recent date in eastern

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[37] The fact that a much higher proportion of the installed capital stock in all these countries is relatively new means that much less scrap becomes available than in the older developed countries of western Europe. Since the exhaustion of war-scrap, the proportion of scrap in steel-making has been declining.

[38] A considerable part of eastern European ore supplies is carried by rail from the Soviet mines.

TABLE 15

Planned output of crude steel and of materials for steel-making

Country	Planned production in 1960 *Millions of tons*				Planned percentage increase 1955 to 1960				Actual percentage increase 1950 to 1955
	Iron ore	Metallurgical coke	Pig iron	Crude steel	Iron ore	Metallurgical coke	Pig iron	Crude steel	Crude steel
Bulgaria	3.0	..	0.2	0.25	.. [a]	.. [a]	.. [a]	240	.. [b]
Czechoslovakia	3.6	7.8 *	4.8	6.5	46	23 [d]	60	46	43
Eastern Germany	1.8	0.5 *	2.25	3.5	8	100 *	48	40	151
Hungary	0.9 *	0.5 *	1.4	2.25	155 *	.. [a]	65	38	55
Poland	5.0 *	12.5	5.2 *	7.2	169	25	67 *	63	75
Rumania	1.1	0.55	1.15	1.6	80	450	100	109	38
Total of 6 countries	15.4	22.1 [c]	15.0	21.3	134	32	66	53	54
USSR	114.3	64.5	53.0	68.3	59	48	59	51	66
Grand total	129.7	86.6	68.0	89.6	65	43	61	51	63

Sources: Plan documents and plan fulfilment reports.

[a] Production was nil or insignificant in 1955.

[b] No production in 1950.

[c] Including a roughly estimated amount of 250,000 tons for Bulgaria.

[d] Total coke production.

TABLE 16

Examples of lines of specialization in the engineering industries agreed upon by eastern European countries

Commodity	Country
Steam turbines below 100 MW	Czechoslovakia, eastern Germany, Poland
„ „ 25 MW	Poland
Small hydraulic turbines	Czechoslovakia, eastern Germany
Large-size electric generators	Czechoslovakia, eastern Germany
Medium-size „ „	Poland
Transformers, 220 kW	Poland
Large ship diesel engines	Czechoslovakia, eastern Germany
Other diesel engines	Hungary
Horizontal presses, 250 tons	Poland
Coal combines	Poland
Coking plants	Poland
Small mining machinery	Poland
Drilling equipment	Rumania, Bulgaria
Specialized machine tools	Hungary
Textile machinery	Eastern Germany, Czechoslovakia
Testing and measuring instruments, especially for textiles	Hungary
Telephones and telegraphic instruments	Hungary
Dining-cars	Eastern Germany
Sleeping-cars	Eastern Germany, Hungary, Poland
Broad-gauge passenger cars	Poland
Railway freight wagons	(Hungary to abstain)
Double-decker passenger cars	Eastern Germany
Large diesel locomotives	Czechoslovakia, Hungary (Bulgaria to abstain)
Electric locomotives	Czechoslovakia, eastern Germany, Poland
Motor trains	Hungary
Large ships (15,000–25,000 GRT)	Poland
Smaller and specialized ships	Eastern Germany, Bulgaria
Passenger cars	Czechoslovakia, Poland (Hungary and Bulgaria to abstain)
Lorries up to 5 tons	Poland (Bulgaria to abstain)
Heavy lorries	Czechoslovakia, eastern Germany, Rumania (Bulgaria to abstain)
Motor buses, 4 tons	Poland, Czechoslovakia
„ „ , more than 4 tons	Hungary
Grain and potato combines	Eastern Germany, Poland
Maize combines	Hungary, Rumania
Sugar beet combines	Czechoslovakia, Eastern Germany
Flax combines	Czechoslovakia
Tractors, 37 H.P.	Rumania
Diesel tractors	Hungary

Sources: *International Affairs*, Moscow, 6 June 1956; *Czechoslovak Economic Bulletin*, 1956 issues; radio broadcasts in eastern European countries; *Der Aussenhandel*, No. 16, 1956, p. 555; *Zycie Gospodarcze*, No. 22, 1956; and direct communications from the governments concerned.

Europe,[39] and in the field of metal-making, more than in most other fields, output in the current five-year period is necessarily determined within narrow limits by the investment policy of the preceding five years.

The Engineering Industries

Production in the engineering industries is everywhere planned to increase at a far higher rate than output of industry as a whole. This is in line with trends in most other countries, and is also consistent with the extremely rapid increase planned for industrial productivity in eastern Europe and the Soviet Union, which requires heavy investment in new machinery and other equipment. This is reflected in a shift in the composition of investment towards a higher share for equipment and a lower share for building and construction,[40] and provides a good reason for the rapid growth of engineering output.

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[39] The Council for Mutual Economic Assistance set up its Commission on Collaboration in the Iron and Steel Sector in October 1956. The problem had been studied by an *ad hoc* working group for the Berlin Council meeting in May 1956.

[40] In the Soviet Union total State fixed investment in 1956 to 1960 is planned to be 67 per cent greater than in 1951 to 1955, while investment in machinery and equipment is to increase by about 80 per cent. Similarly, in eastern Germany equipment is to make up 52 per cent of total investment as against 42 per cent in the preceding plan period.

Part of the desired increase in the output of the engineering industries is expected to be achieved through standardization and through a higher degree of specialization, both as between enterprises within a given country and as between countries. In the negotiations on co-ordination of the plans which took place in the first half of 1956, special attention was given to the engineering industries, and some concrete arrangements for an international division of production programmes appear to have been made. The available information is summarized in Table 16.[40a]

This action is, however, of somewhat limited scope. It does not amount to much more than a survey of present production capacities with a view to avoiding duplication, to securing outlets for surpluses within the region, and to obtaining such specialization in types and designs as can be carried through without requiring major investment decisions. No attempt appears to have been made to carry out cost comparisons which could serve as a guide to the appropriate levels of investment, at least in basic industries. Another question, to which no answer, theoretical or practical, seems so far to have been given, is whether prices should play a more important role in determining flows of trade in manufactures. If the answer were in the affirmative, the further question would still arise—how this can be achieved in view of differences in price structures and exchange rates which do not adequately reflect the relative purchasing power of national currencies.

[40a] Details on production programmes are given in Appendix Table XXVII.

6. FUEL AND ENERGY

Differences in Total Energy Supply

The broad estimates of total output of energy presented in Table 17 show that in Czechoslovakia and eastern Germany the rate of increase foreseen for the current 5-year period is approximately equal to that actually achieved from 1950 to 1955. It seems, however, that the increase planned for eastern Germany can be achieved only at sharply increasing costs.[41] In Poland, the planned increase—some 20 per cent—is modest in comparison with the expected development of the economy as a whole; the possibilities of recruiting more manpower for the mines are very limited, and the expansion of production will therefore have to come about through a much-needed, but also very expensive, modernization of the coal-raising equipment. As a result of these difficulties, the Polish export surplus of coal, on which several other countries of the region rely for supplementing their energy supplies, may have to decline. Hungary is in the most difficult position with regard to output of energy, per capita production being even somewhat lower than that of Rumania, in spite of a higher degree of industrialization. Even on the assumption that the recent disturbances would not prevent the realization of the production target, the increase in domestic energy supplies planned in Hungary would seem to imply an increasing dependence on imports in this Plan period.

The Soviet Union is in an intermediate position, with a per capita output of all forms of energy in 1955 of some 2.5 tons in terms of hard-coal equivalent. But the potentialities for expansion are incomparably better in the Soviet Union than elsewhere. The Sixth Five-year Plan foresees an increase of production by no less than two-thirds, which would bring output per head near to the level obtaining in the more highly industrialized countries such as Czechoslovakia and eastern Germany. In spite of the easier energy situation of the Soviet Union, there appear to be no net exports of energy or fuel to the countries of eastern Europe;[42] nor do such exports seem to be foreseen for the period 1956 to 1960.

TABLE 17

Production of primary sources of energy

In terms of hard-coal equivalent

Country	Total production *Millions of tons*			Production per head of population *Tons*		
	1950 Actual	1955 Actual	1960 Plan	1950 Actual	1955 Actual	1960 Plan
Czechoslovakia	33	45	62	2.7	3.5	4.7
Eastern Germany	44	60	78	2.4	3.4	4.4
Hungary	9	14	18	1.0	1.4	1.8
Poland	80	98	116	3.2	3.5	3.9
Rumania	14	26	39	0.9	1.4	2.1
USSR	345	510	828	1.6	2.5	3.9

Sources: See Appendix B.

NOTE. — The figures refer to the calorific content of the primary sources of energy produced (including losses). No account has been taken of the relative efficiencies of different kinds of fuel. A specification by main sources of energy is given in Appendix Table XXVIII.

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[41] The Plan includes the construction of the Schwarze Pumpe brown-coal plant, the cost of which will be equal to about one-fifth of total investment under the First Five-year Plan. This project is the biggest of those necessitated by the shift of brown-coal mining to the newly opened Senftenberg region.

[42] Net exports of oil, if any, appear to be small and are certainly more than offset by net imports of some four million tons of coal.

TABLE 18

Production and capacity of electric power plants

Country	PRODUCTION				CAPACITY				Ratio of percentage increase in generating capacity to percentage increase in production	
	Million MWh		Percentage increase		Thousand MW		Percentage increase			
	1955 Actual	1960 Plan	1950 to 1955	1955 to 1960 Plan	1955 Actual	1960 Plan	1950 to 1955	1955 to 1960	1950 to 1955	1955 to 1960
Czechoslovakia	15.0	25.3	61	69	3.1	5.4	46	75	0.75	1.09
Eastern Germany	28.7	44.0	47	53	5.2	8.2	20	58	0.43	1.09
Hungary	5.4	8.4	80	56	1.0	1.7	40 *	63	0.50	1.12
Poland	17.8	29.9	89	68	4.2	7.5	..	80	..	1.18
Rumania	4.3	8.0	105	86	1.2	1.9	80	56	0.76	0.65
USSR	170.1	320	87	88	37.0	81.0	69	120	0.79	1.36

Sources : Plan documents and plan fulfilment reports.

The fact that the energy situation is strained, although in varying degrees, throughout eastern Europe [43] makes it difficult to relieve the pressure much through an expansion of trade in fuel within the region. It is also striking that the limited trading in fuel forces countries to a wasteful utilization of their own resources, such as the production of liquid fuels out of brown coal in eastern Germany, contrasting with the use of oil for steam-raising in Rumania. There may be a case, therefore, both for more intensive exchanges of fuel and energy among these countries and for some co-ordination of investment plans with a view to avoiding the creation of new capacities for especially energy-intensive industries, such as aluminium, in those countries where the supply of power is particularly inelastic.[44] This problem may have been ventilated in the preliminary discussions on plan co-ordination, but the actual plans, so far as they have been published, do not reflect any practical results.

Another obvious conclusion to draw from the general situation of power shortage in eastern Europe is that it is important to increase efficiency in the transformation of fuel into electrical energy and gas. One important reason why the cost of producing fuel is likely to increase is that, under the pressure for a quick expansion of output, investment in coal mining (and oil extraction) has hitherto tended to be concentrated on the extraction process itself. In the longer run, ancillary investments in miners' dwellings cannot continue to be neglected without adverse effects on output and, in addition, the cost of extraction will increase owing to the gradual exhaustion of the mines. This prospective increase in the cost of producing fuel naturally makes investment in modern generating equipment, as well as other fuel-saving investments, all the more profitable.

Production of Electricity

In Hungary and eastern Germany, a large share of the available fuel (25 to 35 per cent) is transformed into electric energy. Elsewhere in eastern Europe this share is far lower ; and there is thus much room for a further shift towards electricity, and for a number of years a rapidly increasing share of the total supply of fuel must be devoted to the production of electric power.

The increases in electricity production foreseen during the period 1956 to 1960 range from 55 to 90 per cent (Table 18). These rates of growth are broadly similar to those actually reached in the preceding five-year period, but installed capacity rose at a considerably slower pace. In other words, the increase in output was achieved largely by an increased efficiency of generating equipment, made possible by a reduction of the peak load by means of different time-tables for the various categories of consumer. Even so, industrial production was frequently held up by electricity bottlenecks.

Between 1955 and 1960, capacity is planned to increase at a higher rate than output in all the countries except Rumania ; but it is only in the Soviet Union that the margin is so large that there will be considerable scope for any obsolete generating equipment to be put in reserve or eventually scrapped.

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[43] Bulgaria and Albania are exceptions, at least for the time being.

[44] A striking example is Hungarian production of aluminium with the help of thermal electricity.

TABLE 19

Fuel consumption in thermal plants

Calories per kWh generated

Country	1950	1953	1954	1955	1960 Plan
Czechoslovakia	..	4 480	4 291	4 040	3 410
Eastern Germany	..	..	..	5 650	4 915
Hungary	5 142	5 155	5 034	4 731	..
Poland	..	4 660	4 401	4 045	..
Rumania	..	..	..	4 550	3 700
USSR [a]	3 794	3 570	3 479	3 353	2 800

Sources : See Appendix B.

[a] Average for production in stations of the Ministry of Electric Power. This covers some 70 per cent of total output of thermal electricity.

The need for such renewal and modernization of the generating equipment can be gauged from Table 19, which shows that in the eastern European countries fuel input (in terms of calories) per kWh generated continues to be far higher than in the Soviet Union.[45-46] Even if the improvement envisaged for eastern Germany and Rumania were realized, fuel consumption in 1960 would still be considerably higher than the corresponding figure for the Soviet Union in 1955. Thus, within the framework of co-ordinated planning, there would seem to be a good case for giving eastern Germany and Hungary a high priority in the distribution of the modern generating equipment becoming available. The negotiations which have so far taken place, however, seem to have envisaged an agreed distribution of production and investment tasks, but scarcely the international allocation of commodities in short supply.

There has been much discussion in eastern Europe in recent months of the relationship between growth rates for industrial production and for production of electricity during the years 1956 to 1960. In all countries of eastern Europe (but not in the Soviet Union[47]) the output of electricity increased from 1950 to 1955 at a lower rate than did gross industrial production (see Table 20). This is somewhat surprising against the background of recent trends in practically all western European countries. Part of the explanation is probably purely statistical—that the indices of gross industrial production had an upward bias during this period, owing to an increasing amount of double-counting. For the period 1956 to 1960, the rate of increase of electric power output is planned to be distinctly higher than that of industrial production.[48] Indeed, an increase in industrial consumption of electricity per unit of output would seem to be inescapable if the high targets for output per man in industry are to be reached.

TABLE 20

Production of electric power in relation to industrial production

Country	Ratio of percentage increase in electric power production to percentage increase in gross industrial output	
	1950 to 1955 Actual	1955 to 1960 Plan
Albania	1.63	0.90
Czechoslovakia	0.87	1.36
Eastern Germany	0.52	0.96
Hungary	0.78	1.15
Poland	0.75	1.28
Rumania	0.91	1.37
USSR	1.02	1.35

Sources : Plan documents and plan fulfilment reports.

7. THE PENDING REVISION OF THE PLANS

It was mentioned earlier in this chapter that the long-term plans as originally drawn up foresaw increases in national income not far below those of the preceding period. The economic experience of the eastern European countries since the early post-war years shows that, for a number of years, remarkably high rates of growth of total output can be achieved as a result of concerted efforts to mobilize the existing manpower resources while limiting the increase in consumers' purchasing power. But experience also suggests that rates of increase like those registered in eastern European countries in the preceding quinquennium cannot be sustained for a long period, once the reserves of the economies, in the form of underemployed labour or capacity, have been drawn upon.

As seen in the foregoing sections, the problematical feature of the original plans for the 1956 to 1960 period is the contrast between very high rates of growth for industry and modest increases in industrial manpower. The question whether such spectacular

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[45-46] The Soviet figure shows a high efficiency by any standard It is not quite clear, however, whether it is fully comparable with the figures quoted for the other countries.

[47] Albania was also an exception.

[48] Eastern Germany is an exception. For the period 1950 to 1955 the particularly wide discrepancy in eastern Germany can be explained partly in terms of a changed composition of industrial output towards less energy-intensive branches.

increases in output per man could be realistically envisaged was partly answered by the actual economic results in 1956, the first year of the new plan period: as described in Chapter I, investment failed to reach the plan targets for that year, and in some countries the margin between plan and fulfilment was so wide that a scaling-down of the five-year plans would probably have become necessary for this reason alone.

In addition, political events have influenced planning in three respects. First, demands for a more rapid increase in real wages have been voiced in several of the countries. Secondly, efforts to coordinate the national plans with each other were inevitably disturbed by developments in Poland and Hungary during the latter part of 1956—while some of the plans were still only in rough outline—and this may have delayed the elaboration of more complete and final plans. Thirdly, in Poland, and to a lesser extent in some other countries, important questions concerning the scope and methods of economic planning came up for reconsideration during 1956.

At the time of writing, little quantitative information is available about the changes which will eventually be made in the five-year plans. Only the broad direction of the changes can be gauged from the relevant official statements.

According to these announcements there appear to be two main intentions behind the decision to revise the plans—a scaling-down of targets which in the light of experience in 1956 now appear to have been set too high, and secondly, an adjustment of the targets so as to enlarge the scope for a more rapid improvement in consumption levels. Strictly speaking, these two lines of approach cannot be clearly distinguished, for the plans as originally drafted certainly did call for a very substantial increase in real wages. It may be more pertinent, therefore, to say that the revisions now being undertaken aim at adjusting the plans in such a way that the increases in standards of living originally foreseen can actually take place. These increases, as mentioned earlier, were planned to be of the order of 5½ to 6 per cent annually. This is probably about the maximum rate of increase in real wage rates which is attainable in any event, unless there were exceptional opportunities of adjustment through foreign trade.

With important exceptions which will be mentioned further below, the intention seems to be to modify the composition of investment rather than to lower the over-all rate of investment. This also appears to be the more rational procedure. A cut in the rate of investment, although it may be unavoidable in a difficult situation, can provide immediate relief for the consumer only at the expense of a slower increase in consumption in the near future; and this immediate improvement may involve also some immediate loss of over-all output, owing to the difficulties of effecting transfers of productive factors.

Of course, this general description does not entirely fit any particular country within the region. The scope and intentions of the plan revisions differ from one country to the other, depending on recent economic trends, the foreign trade situation and actual or contemplated changes in economic policy.

The December 1956 resolution by the Central Committee of the Communist Party of the USSR dealt primarily with the need for improving planning methods, by giving more responsibility to the governments of the various republics and, more generally, by eliminating excessive centralization and by stimulating a more lively participation of trade unions in the detailed formulation and execution of the production plans.

As regards the quantitative targets of the Sixth Five-year Plan, the resolution calls for more precise specification and for a correction of individual targets. A special difficulty stressed by the resolution is the tendency for investment activity to outrun the flow of materials and fuel, with the result that the production process is frequently interrupted.[49] The resolution calls for an increase of stocks in industry and for a curtailing of the list of construction projects, mainly at the expense of newly started projects. The concentration of investment efforts on fewer undertakings seems to have the double purpose of unfreezing stocks of materials hitherto hoarded on many construction sites,[50] and of hastening—during a certain period of transition—the rate at which investment undertakings are completed.

While the exact scope of the changes in the targets of the Soviet Plan still remains to be seen,[50a] it is already clear that the Plan for eastern Germany is in for a thorough overhaul. The change will primarily consist in a severe cut in investment—or rather in not carrying out the spectacular increase of investment which had first been planned. The magnitude of the change can be gauged from the new 1957 Plan, which foresees state investment of 6.5 billion DM, as against a figure of 10.5 billion DM in an earlier plan for that year.[51] The mobility of productive factors is hardly sufficient for investment to be varied within such wide limits without great losses in efficiency, so that an adjustment of this order of magnitude cannot be the reflection merely of a change of policy. It also implies an acknowledgement that the original plan was unrealistic, even within the framework of its own policy premisses.

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[49] The resolution complains that the authorities " do not make provisions for sufficient resources of raw materials and fuel, and undertake unnecessarily big construction programmes which create excessive strain in fulfilling the programmes; in a number of instances, there are omissions and mistakes in the plans. This disrupts the regular functioning of enterprises and causes work by fits and starts, and hold-ups, while in the sphere of construction it results in a scattering of the available funds over numerous newly begun projects, in prolonged building time, in greater construction costs and in violations of the set time limits within which new projects are to be completed." (*Pravda*, 25 December 1956.)

[50] Enterprises are frequently criticized for holding stocks of materials in quantities above those authorized as necessary for the production process (such hoarding, despite the penalties of high interest on the finance of stocks, seems to be the outcome of an irregular supply service). In 1955, stocks of equipment not yet installed amounted to 13 billion roubles (or half the annual supply of all new equipment).

[50a] The Soviet Plan for the year 1957 is discussed in Chapter I.

In Czechoslovakia it has been announced that the Plan will be modified so as to secure an improvement in the standard of living. As in the Soviet Union, the need for a more regular flow of raw materials and for improvements in planning methods is being stressed.[52] In Rumania it seems that the targets for industrial production will be reduced, and there will be a shift towards equipment and materials which promise an early return in the form of consumer goods. The total planned volume of investment will be cut somewhat, it seems, while its composition will be modified by concentrating on the early completion of a limited number of projects.[53]

The new Polish Plan which is being elaborated for presentation to the Sejm is likely to be very different from the first outline. The newest figure for investments in 1957 may give an impression of the direction of the changes. Total investment—including private investment—is to remain at the 1956 level of some 47.5 billion zlotys, as against an originally planned figure of 53.3 billion zlotys, but its composition is to change significantly: sharp increases of investment funds for building material industries and for agriculture (in both cases to be channelled largely to private producers), a fairly large increase for light industries, and unchanged or reduced investment funds for the engineering, metal and chemical industries. Within " unproductive " investment armaments and administrative buildings are to be cut, while investment in primary schools and hospitals is to increase faster, as compared with 1956, than any other group of investment projects.

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[51] This may be compared with planned and actual investment in 1956 of 7.0 and 6.0 billion DM respectively.

[52] Mr. A. Zápotocký, *Rudé Právo*, 5 January 1957.

[53] Mr. Gheorghiu-Dej, *Scinteia*, 30 December 1956.

Note. — Tables XXI to XXVIII in Appendix A give additional information on the subject matter of this chapter.

Chapter IX

THE DISTRIBUTION OF PERSONAL INCOME BY SIZE

Two facets of the distribution of income have been studied in Chapters VII and VIII: the distribution of income by industry of origin and by factor shares. This chapter examines a third aspect of income distribution—namely, the distribution of personal income by size. Here the incomes of persons from work in any sector (including their incomes from property and from transfers) are grouped according to size for the economy as a whole, or for occupational and industrial sub-groups, and attention is focused on the inequality of incomes and the demographic and economic factors which tend to make personal income distributions more equal or less equal. In the first instance, incomes before tax will be considered, but the re-distributive effects of direct taxation will later be taken into account.

1. Introduction: Definitions and Coverages

The Concepts of Income and of Income Recipient

The definition of income and of the recipient unit is clearly of great importance in the interpretation of size distributions of income, and the choice of concepts would in theory depend very much on the purpose of the study undertaken. In practice, there is no choice but to accept the definitions used in the published material, which are derived almost exclusively from tax returns. The definitions depend, therefore, on the existing tax laws and differ not only from one country to another, but possibly also from one period to another in the same country.[1] In none of the countries examined [2] does published information, or such supplementary information as could be obtained, make possible adjustments which would significantly improve the comparability of the data.

The concept of income used is a fairly wide one, generally covering total income from all sources, less losses and expenses incurred in acquiring the income. Income is sometimes shown net of national insurance contributions; in other cases all types of insurance contributions are permissible deductions up to a certain maximum limit beyond which tax on such distributions is payable, and there is a special case (Denmark) where income reported is also net of all direct taxes paid, other than the state tax on income.

The data on the distribution of income after tax show pre-tax income minus taxes paid on income to the central government, except in the case of Sweden, where for the years 1935 to 1948 all direct personal taxes are deducted.

The income concept used in the distributions for industrial and occupational sub-groups—referred to throughout this study as partial distributions—is the same as in the aggregate pre-tax distributions for the Netherlands and Sweden; in the case of Denmark the partial distributions show after-tax incomes only.

As to the recipient unit, the combined income of married couples is everywhere counted as one income, except in the Swedish partial distributions, where married women's earnings are counted separately. Dependent children's earnings are counted with those of their parents in Sweden. In the United Kingdom and Denmark they are recorded independently, and this is also true of the pre-war Dutch distributions. In the German data and in the post-war data for the Netherlands, dependent children's income from sources other than employment is counted with parents' income, while income from employment is recorded separately.

The Countries covered

The coverage, in respect both of countries and of years considered, is far less satisfactory than in the preceding chapters. While in recent years there has been significant progress in a number of countries in the collection of data relating to size distributions of income, comparable information going back over a period sufficiently long to lend itself to analysis—an early post-war or a late pre-war year—is scarce. Information of this type is available virtually only in tax returns.[3] In the case of most European countries the income covered by size-range data constitutes such a small part of aggregate personal income (as derived from national accounts estimates),[4] and the persons considered account for such a limited proportion of the earning population that they cannot be used as indicators of size distributions of income for the economy as a whole.

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[1] The latter is true to the extent that the income shown is net of permissible allowances of one kind or another up to a maximum limit and there has been a change in this limit over time or a change in the type of deductions allowed.

[2] i.e., Denmark, western Germany, the Netherlands, Sweden and the United Kingdom.

Nor can tax data be relied upon to reveal the shifts which have occurred in the size distribution within a segment of personal income, because the extent to which the data are affected by changes in taxation may often be sufficiently important to obscure completely any real or non-statistical changes in the distribution.

These shortcomings are so general in the available statistics of European countries that there are only five countries for which the data give a reasonably reliable indication of changes in the size distribution of aggregate personal income. These countries are the United Kingdom, western Germany, the Netherlands, Sweden and Denmark. For these five countries distributions relating to total personal income before tax and (except for Germany) after tax are here analysed. For the Netherlands, Sweden and Denmark the distribution of income by size within groups classified according to industrial attachment, occupational status and other socio-economic characteristics will also be examined.

The distributions compare the latest available year with an early post-war year and wherever possible a late pre-war year, but the years do not coincide for all countries.[5]

Coverage in Respect of Income

The data are far from satisfactory even for the five countries for which a comparison with a pre-war year is possible, since they are based essentially on tax returns and suffer in varying degree from many of their limitations. The most serious of these shortcomings is that they cover a varying and unknown percentage of income recipients and of total income each year. It will be seen from Table 1 that from 15 to 20 per cent of aggregate personal income is left out in the distributions shown; for Denmark the proportion exceeds 30 per cent.

The income omitted consists partly of income which cannot easily be attributed to income ranges, such as investment income of non-profit-making institutions and life insurance, superannuation funds, etc. Secondly, there is income left out because of legal underestimation on the part of the beneficiary, such as various types of imputed income[6] (e.g. income in kind of domestic servants and farm labourers, consumption of own produce in agriculture, income imputed to owner-occupied dwellings, etc.). Fraudulent under-declaration is also important; the amounts involved are thought to be as high as 10 to 15 per cent of the total reported income, except perhaps in the United Kingdom.[7]

It is a general feature of the size-range statistics of all the five countries that they leave out these types of income,[8] and there is little information on which estimates of the magnitudes involved could be based. But it is certain that they account for the greater part of the 15 to 30 per cent gap between aggregate personal income and the total given in the statistical distributions.

Finally, certain types of income, or the income of certain categories of recipients, are not taken into account. The importance of this factor varies considerably from one country to the other, depending on the tax laws and on the extent to which the basic data have been adjusted to bring in income omitted and to obtain comparability over time. From the detailed account of the coverage of the data for each country given in Appendix B, it can be seen that in most countries income considered is net of expenses incurred in acquiring the income, life insurance premiums and employees' contributions to social security. Old-age benefits and relief, military pensions and similar receipts are also generally excluded, either because they are allowable in reported income or because the beneficiaries in most cases fall below the tax exemption limit.

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[3] Population censuses and consumer surveys are important sources of personal income data in some countries. It is difficult to use this material, however, as the definitions adopted with respect to income and the income recipient usually differ importantly from one Survey or census to the next. Also these definitions differ from those used in tax returns so that Survey or census material can rarely be used to improve the latter.

[4] Thus, for instance, in France, tax return data on size distribution cover less than 20 per cent of total personal income, while in Italy there are no official data relating to size distribution of income whatsoever.

[5] They refer for the United Kingdom to 1938, 1949 and 1955; for pre-war Germany to 1936 and for western Germany to 1950; for the Netherlands to 1939, 1946 and 1950, and with respect to partial distributions to 1946 and 1950; for Sweden to 1935, 1945, 1948 and 1954, and for partial distributions to 1945 and 1954; for Denmark to 1939 and 1952, and with respect to partial distributions to 1939, 1948 and 1953.

[6] There are several other differences between valuation methods used in reporting income for taxation purposes and those used in national accounts estimates, which would make for discrepancies between the totals for personal income obtained from the two sources. Thus the treatment of depreciation generally differs, and the averaging over several years of income and losses which are permitted for taxation purposes in some countries may give quite different results from national income estimates, particularly for agriculture and other industries where small non-corporate enterprise predominates. Also capital gains, which are excluded in national accounting, are partly taken into account (e.g., in the Netherlands and Denmark) in income reported for taxation purposes.

[7] For estimates of tax evasion see *Het Nationale Inkomen van Nederland 1921–1939*, Centraal Bureau voor de Statistiek, Utrecht, 1948, p. 11 (Netherlands); N. Ussing, " En fordeling af skatter og sociale ydelser i 1949 paa sociale grupper", *Socialt Tidsskrift*, No. 7–8, 1953, p. 231 (Denmark); D. Seers, *The Levelling of Incomes since 1938*, p. 44 (the United Kingdom); and R. Bentzel, *Inkomstfördelingen i Sverige*, Uppsala, 1953, p. 63 (Sweden).

[8] Except in the case of the Swedish data for 1935–1948, which have been adjusted to obtain a very complete coverage. The development since 1948 has been indicated by distributions giving taxpayers' income only.

Other incomes below the tax exemption limit are included in the British, Swedish and Danish data only. For the first two countries, the basic data have been adjusted [9] to obtain fuller coverage, while in Denmark the original tax records cover all income recipients down to the zero income level. In the case of western Germany and the Netherlands the incomplete coverage affects mainly income from sources other than dependent employment ; the German data have been adjusted to include wage and salary earners omitted in the wage tax returns, and in the Netherlands post-war tax returns on wages and salaries record incomes down to a very low level, while for pre-war years estimates are available of incomes below the exemption level earned by economically active persons. It is therefore only the aggregate distributions for Sweden in 1954 and the partial distributions for 1945 and 1954 that completely ignore incomes below the tax exemption limit.[10]

There is no satisfactory way of dealing with the problem of the exemption limit. An adjustment of the data to cover only income above an exemption limit held unchanged in terms of constant prices removes only part of the problem, as the coverage of the data would change with changes in the level of real incomes. Any such adjustment of the exemption limit would in any case be a very arbitrary operation, because it would involve splitting up a usually very big lower group of incomes, the internal distribution of which is completely unknown. Moreover, tax exemption limits normally depend on the burden of dependants, and details about family size in taxation statistics are very scarce.

TABLE 1

Coverage of size-range data

Country	Year	Coverage in respect of	
		Amount of income [a]	Number of incomes [b]
United Kingdom .	1938	86	92
	1949	84	97
	1955	84	98
Pre-war Germany .	1936	ca. 80	..
Western Germany .	1950	ca. 80	80
Netherlands . . .	1938	85	79
	1946	83	74
	1950	79	79
Denmark	1939	63	88
	1952	68	97
Sweden	1935	ca. 100	100
	1945	ca. 100	100
	1948	ca. 100	100
	1948 } unadjusted	84	91
	1954 } tax returns	82	85

Sources : See Appendix B.

[a] Income covered in size-range statistics as percentage of total personal income as defined in national income statistics.

[b] Number of income recipients as a percentage of the population aged 15 and over, excluding married women.

Coverage in Respect of Recipients

The coverage of the data is generally fuller for income recipients than for amounts of income, as is to be expected. The income recorded for taxation purposes is rarely the total of a person's income, and certain types of income, such as that of non-profit-making institutions, cannot be allocated by size ranges. The degree of coverage as measured [11] in Table 1 cannot, however, be expected to reach one hundred per cent [12] as it is clear that not every person aged fifteen and over (excluding married women) has a separate income. It is also evident that the inter-country and inter-temporal differences revealed in the second column of Table 1 reflect not only differences in the degree of coverage, but also the fact that young people go to work earlier in one country than in another and that activity rates of young persons change over time.[13] Furthermore, the proportion of old persons having separate incomes varies between countries and over time.

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[9] For Sweden, see Bentzel, *loc. cit.* : for the United Kingdom the estimates are those of the Central Statistical Office.

[10] In Sweden the tax exemption limit in state taxation of income was roughly doubled by increasing permissible allowances between 1945 and 1954. The price rise over the same period was of the order of 50 to 60 per cent. It is likely, therefore, that the coverage of the partial distributions for Sweden has not increased, and perhaps even decreased in spite of price inflation. As far as the over-all distributions for 1948 and 1954 are concerned, it should be noted that there was a decline in the number of incomes reported over this period.

[11] An alternative way of measuring coverage would be to take the total of income recipients reporting, plus their dependants, as a percentage of the total population. This can be done for the Netherlands and gives a coverage of 97 per cent in 1950. If the number of dependent children, the total of which exceeds the entire population in age groups below 19 years, is reduced by the number of persons below 19 years reporting separate incomes, the coverage for 1950 amounts to 93 per cent.

[12] The very full coverage of the Swedish data for the period 1935 to 1948 results from the fact that the estimates (made by Mr. R. Bentzel) have been based on the assumption that the total of persons aged 15 and over, excluding married women, have separate incomes.

[13] See the SURVEY for 1955, page 125.

2. The Inequality of Incomes before and after the War

In most north-western European countries total personal income, which includes transfers, is slightly larger than total national income, but the development in the two magnitudes has been very similar since the late pre-war period. Table 2 shows the trend of personal income per head at constant prices since before the war, and serves as a background against which the changes in the size distribution of incomes must be seen. Attention will therefore be centred on the changes in real income between the years for which distributional data are shown.

The country which experienced the most pronounced changes is Sweden, where personal income per head in 1954 may have been 80 per cent greater than in 1935 (a year for which real income data are not available). Even since 1948 per capita real income had increased by 21 per cent, while the rise since 1945 (the year examined in the partial distributions) may have been as much as one-half. The increase in personal income per head in the United Kingdom and Denmark since before the war is more modest—14 and 7 per cent respectively—with a somewhat bigger increase since 1948.

In the Netherlands 1950 shows little improvement over pre-war, but the rise between 1946 and 1950 has been of the order of 25 per cent. Western Germany is clearly a special case, as national income per head in 1950 had only just recovered to the pre-war level. Marked progress has been made since then, however; per capita national income in 1956 was more than 50 per cent larger than in 1950.

TABLE 2

Indices of real personal income per head

1938 = 100

Year	United Kingdom	Western Germany [a]	Netherlands	Denmark	Sweden [b]
1948	96	. .	99	97	132
1949	98	84	101	100	133
1950	100	94	99	102	137
1951	100	104	99	99	141
1952	102	109	101	103	150
1953	106	115	110	107	154
1954	110	123	117	109	160
1955	114	135	126	. .	. .

Sources : See Appendix B.

[a] Data relate to national income; base year 1936.

[b] Base year 1938/39.

Measuring Inequality

Changes in the size distribution of income will be studied mainly with regard to changes in the relative rather than in the absolute distribution. This is desirable because the study is concerned with several countries and, for each country, with years separated by periods of marked price changes. Three problems will be examined: first, whether the distribution of income has become more or less equal over the period studied ; secondly, over which ranges on the income scale the most important shifts have taken place ; and, finally, how the position at the two extremes of the scale has changed.

The degree of inequality is illustrated by means of Lorenz curves which show the percentage of aggregate income received by a given percentage of recipients arrayed by the size of their income. The degree of inequality is measured by the associated coefficient of inequality, which is the ratio of (*a*) the area between the Lorenz curve and the diagonal of fully equal distribution to (*b*) the area of the whole triangle under the diagonal. " Maximum equalization percentages " have also been calculated which indicate the percentage of total income which would have to be transferred from higher to lower income ranges if complete equality were to be obtained. Higher coefficients indicate greater inequality.

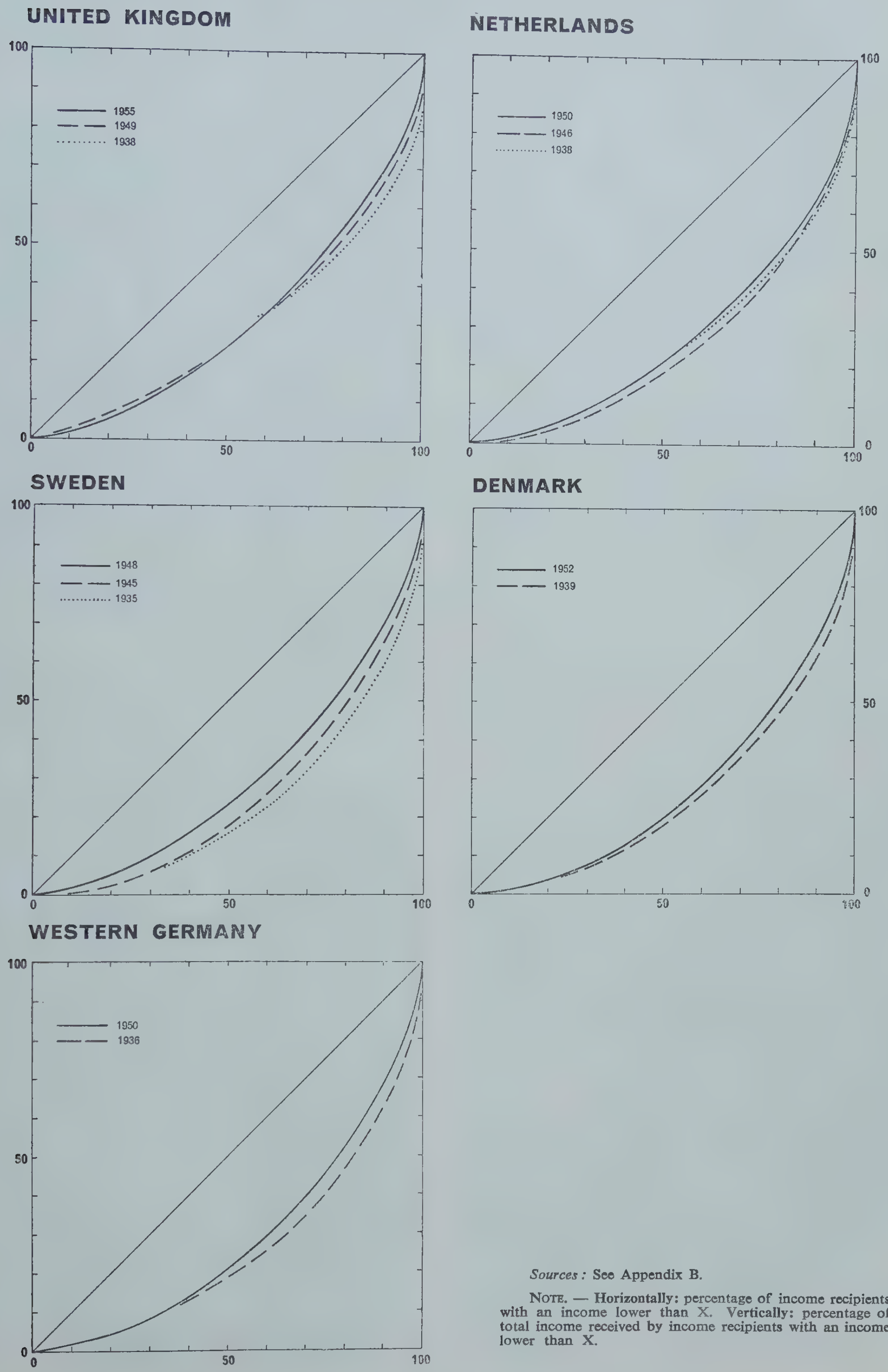
The well-known shortcomings of inequality coefficients should be kept in mind in interpreting the data. The standard of perfect equality against which existing inequality is measured represents in no way a distribution which on economic, social or political grounds could be considered as an ideal or optimum one. The standard sets a clearly unrealistic distribution, in which the criterion of equality applies to the unit on which the empirical distributions are based without making any allowance for inequality which would be justifiable or desirable when account is taken of age, experience, skill, risk and similar factors. Thus, in the case of the distributions which classify married couples' earnings jointly and children's earnings generally separately, the standard against which inequality is measured requires that the earnings of youngsters in part-time employment (in so far as they are included in the empirical distribution) should equal the total of income earned by married couples where both parties are in full-time employment.

Furthermore, the fact that a completely equal distribution is used as a basis of reference means that the Lorenz curve and the associated inequality coefficient are highly insensitive to anything but very big changes in the distribution. Thus, significant

CHART 1

Distribution of income before tax

Lorenz curves



Sources : See Appendix B.

NOTE. — Horizontally: percentage of income recipients with an income lower than X. Vertically: percentage of total income received by income recipients with an income lower than X.

TABLE 3

Percentage distribution of total income before tax by decile and percentile groups

	United Kingdom			Germany Pre-war	Germany Western	Netherlands			Denmark		Sweden				
	1938	1949	1955	1936	1950	1938	1946	1950	1939	1952	1935	1945	1948	1948 [a]	1954
Decile groups:															
1	33.2	7.2	10.7	1	1	28.5	1.0	1.3	7.6	1.4	16.0	2.4	3.2	1.2	2.
2				2	3		2.2	2.9		6.9				3.3	3.
3		4.3		4	4		3.4	4.0				3.7	4.0	4.8	5.
4		5.5	22.0	4	4.5		5.0	5.6	17.6	5.4		4.9	5.6	5.9	6.
5		7.0		7	7.5		6.4	7.2		7.0		6.7	7.3	7.5	7.
6		8.0		8.5	9		8.0	8.5		8.8	6.7	8.6	9.0	9.0	9.
7	7.5	9.7	23.6	9.5	11	8.3	9.3	9.8	9.0	10.6	9.0	10.6	11.4	10.6	10.
8	9.3	10.8		11	12	10.7	11.7	11.7	12.3	29.2	12.2	12.5	12.9	12.5	12.
9	12.0	14.5	14.4	14	14	13.8	14.7	14.0	15.9		16.6	16.5	16.3	15.2	15.
10	38.0	33.0	29.3	39	34	38.7	38.3	35.0	37.6	30.7	39.5	34.1	30.3	30.0	27.
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Percentile groups:															
90–92.5	4.0	4.4	9.1	5.3	5.0	4.5	5.3	4.6	4.8	10.6	5.2	5.0	4.8	4.5	5.
92.5–95	4.5	4.9		5.8	5.4	5.3	5.7	5.8	6.1		6.2	5.6	5.4	5.5	5.
95–97.5	6.7	6.7	6.0	6.9	6.5	7.3	8.1	6.9	6.7	6.6	7.9	7.5	7.0	6.5	6.
97.5–98.75	5.1	4.6	5.3	5.3	4.7	5.3	6.4	4.8	5.0	4.1	5.5	5.3	4.7	4.5	4.
98.75–100	17.7	12.4	8.9	15.7	12.4	16.3	12.8	12.9	15.0	9.4	14.7	10.8	8.4	9.0	6.
Total	38.0	33.0	29.3	39.0	34.0	38.7	38.3	35.0	37.6	30.7	39.5	34.2	30.3	30.0	27.
Inequality coefficient	0.43	0.42	0.41	0.49	0.45	0.48	0.50	0.45	0.50	0.44	0.54	0.48	0.44	0.40	0.3
Maximum equalization percentage	30	28	27	34	31	33	35	31	36	31	38	33	31	28	26

Sources : See Appendix B.
[a] Data are based on unadjusted tax records.

improvements in the position of low versus high income ranges may take place with a movement of the curve towards the line of equality which would hardly be perceptible visually and with a reduction in the inequality coefficient of only a few percentage points. To overcome this disadvantage, and in general to bring out shifts over the income ranges which are difficult to read off the curve on the scale used, tables have been constructed showing the share of total income held by decile, and at the upper extreme of the distribution, by percentile groups. These income shares which have been derived from the curve are subject to rather large errors, since the number of known points on the curve is limited. Details on the distribution within the lower income ranges are completely lacking for most countries.

Finally, it should be emphasized that in what follows no account is taken of changes in real incomes. It is only if price changes can be assumed to have affected incomes in all ranges in a similar manner that an unchanged inequality coefficient or a stable Lorenz curve can be interpreted to mean that the degree of inequality in the distribution of real income has not changed.

Lorenz curves for the over-all distribution of income before tax in different years are shown for five countries in Chart 1, and Table 3 gives the associated measures of inequality as well as the percentage distribution over decile and percentile groups derived from the curves. Only for western Germany, Sweden and Denmark are the post-war curves distinctly closer to the line of equality than the pre-war curve. The shift is particularly marked in the Swedish distributions for the period up to 1948, which might be expected in view of their very full coverage in respect of low incomes. The pre-war and the early post-war curve for the Netherlands intersect, while there is a clear movement in the direction of greater equality between 1946 and 1950.[14] In the case of the United Kingdom all the three curves intersect. The levelling of income differences within the top third of income recipients appears to have been almost counterbalanced by the tendency towards a less equal distribution over the remaining ranges. Thus it is seen from Table 3 that the decline in the inequality coefficient and the maximum equalization percentage for the United Kingdom is of the order of two to three percentage points only.

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[14] The size distribution of income before tax for 1952 is practically identical with the one for 1950.

Indices for the Netherlands also show that the degree of inequality may not have changed much since before the war.[15] In a recent study by the Dutch Central Statistical Office,[16] results were obtained for family incomes and for incomes of persons living alone which indicate a slightly greater reduction in the degree of inequality since before the war than that shown in Table 3.

In all the five countries considered, the poorer half of the population received in post-war years from 20 to 25 per cent of total income, the following 20 per cent disposed of about 20 per cent of total income, while 25 to 30 per cent of total income was held by the eighth and ninth decile groups. The share of total income received by the lower seven decile groups has increased since before the war and the gain is relatively more important in the seventh decile than in the lowest six in the United Kingdom, western Germany and the Netherlands. The contrast between the development in the two groups is particularly marked in the United Kingdom, where, according to the estimates in Table 3, the share held by the poorest 60 per cent of the population has hardly changed. The relative improvement in the eighth decile is also a general phenomenon, while the position of the ninth decile has remained stable except in the United Kingdom, where its share in total income increased by more than 20 per cent. The percentage share in total income of the tenth decile has fallen everywhere; the proportion of income held by this group, which was not far below 40 per cent in all five countries in pre-war days, has declined to 30 per cent or less in the United Kingdom, Sweden and Denmark and to 35 per cent in the other two countries. In western Germany, Sweden and Denmark the top five percentile groups have all seen their relative position deteriorate; in the United Kingdom and the Netherlands, on the other hand, there is no loss in income shares before one gets to the top three.

The fact that these few per cent of top income receivers who have had their income shares reduced receive such a large proportion of total income means that the levelling of income observed in the total distribution is to a large extent due to these changes at the upper end of the scale. In fact, fully one-half to two-thirds [17] of the movement towards greater equality in the over-all distribution of income before tax is accounted for by the " transfer " of income from the top five per cent to the remaining 95 per cent of the population. The remainder is due to a general levelling of incomes within the latter group. The tendency towards a more equal distribution within the top five per cent has been marked in all five countries, but is of limited importance in explaining the " reduction " in the over-all inequality because of the low weight of this group.

The Declining Share of the Top Income Ranges

The sharp deterioration since before the war in the relative position of the upper few percentile groups in the distribution of income before tax has already been shown in Table 3. The top five per cent of income recipients have had their share in before-tax income reduced by more than 30 per cent in the United Kingdom and Sweden; in the other three countries the decline has been less striking but still important—ranging from 15 per cent in the Netherlands and western Germany to 25 per cent in Denmark.

Certain types of income payments—i.e., income from property—which have done less well than earned income since the pre-war period, tend to be relatively important in these upper income ranges. This is brought out by the figures in Table 4. It is seen that interest and dividend payments account for a much higher share of total income among the richest five per cent of the population than in other income ranges. Rent is also generally more important in very high incomes than further down the scale, but the difference is much less marked than in the case of interest and dividend payments. It is only in extremely high income ranges, however, that property income accounts for an important share of total income; in the upper five percentile groups the share is no more than about 15 to 20 in the Netherlands and the United Kingdom and very much smaller in the other two countries.[18]

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[15] The pre-war series are, however, not strictly comparable with post-war data. The former include traders, farmers and other independent entrepreneurs with incomes below the tax exemption limit, while in the post-war distributions incomes below the tax exemption limit concern, by and large, only wages and salaries. This would imply that the distributions shown overestimate the development made towards greater equality.

[16] *Statistische en econometrische onderzoekingen*, 4th quarter 1956. The distribution of family incomes in the Netherlands in 1949 and 1954.

[17] This has been estimated by comparing inequality coefficients obtained for three distributions in which it was assumed that the only change between the two years studied had been (*a*) the shift in income shares from the top 5 per cent to the bottom 95 per cent of the distribution; (*b*) the reduction in relative inequality within the lower 95 per cent segment; (*c*) the reduction in relative inequality within the top 5 per cent segment.

[18] The very low figures for interest and dividends in western Germany result from the fact that few western German companies distributed any dividends in 1950, and where a distribution took place it generally involved very modest amounts. The share of interest and dividends in total income assessed for

(Continued on next page)

TABLE 4

Investment income in selected income ranges

Income ranges		Interest and dividends	Rent
Limits in national currencies	Limits in terms of percentile groups	Percentage of total net income [a]	
United Kingdom 1949/50 (£)			
135–350	21–69	3.0	1.7
350–500	69–88	2.3	1.6
500–800	88–96.2	4.8	2.4
800–1,500	96.2–98.6	13.8	4.2
1,500–10,000	98.6–99.96	30.9	4.6
10,000 and above	99.96–100	55.5	3.0
TOTAL		8.6	2.4
Western Germany 1950 (1,000 DM)			
Below 3	Below 66	0.4	1.2
3–5	66–90	0.5	.9
5–8	90–97.2	.1	1.8
8–12	97.2–98.8	.4	2.3
12–100	98.8–99.98	.5	1.3
100 and above	99.98–100	1.5	.7
TOTAL		.1	1.4
Netherlands 1952 (1,000 Fl.)			
Below 4	Below 76	1.9	1.4
4–6	76–90	2.4	1.3
6–10	90–96.8	4.8	2.0
10–15	96.8–98.5	7.9	2.4
15–50	98.5–99.96	14.7	2.5
50 and above	99.96–100	29.2	1.3
TOTAL		5.3	1.6
Sweden 1950 (1,000 Kr.)			
Below 7	Below 69	2.5 (.4) [b]	1.1
7–10	69–89	1.1 (.3)	.5
10–15	89–96.5	2.0 (.7)	1.2
15–20	96.5–98.3	4.6 (1.9)	1.6
20–100	98.3–99.97	6.4 (5.2)	2.9
100 and above	99.97–100	15.5 (15.2)	4.2
TOTAL . . .		2.5 (1.0)	1.1

Sources : **United Kingdom:** *Cmd. 8436*, January 1952; **Western Germany:** *Statistik der Bundesrepublik*, Band 125 (I/1956); **Netherlands:** *Statistisch Zakboek* 1956; **Sweden:** *Census of the Population in 1950, VII, Statistics on Income*, 1956.

[a] Income after deduction of losses, life insurance premia and other deductions allowed for tax assessment.

[b] The figures in brackets relate to dividends earned on Swedish shares.

It was seen in Chapter VIII that, wherever national accounts specify different types of property income going to households, the most significant decline is found in rents. Unless the distribution of rent in incomes of different sizes was significantly different in pre-war years from that shown in Table 4, the general decline in rental incomes would hardly be a very important factor explaining the reduction in the share of before-tax income at the disposal of the upper five per cent of income receivers. The same probably holds good for interest payments. Available statistics do not distinguish interest from dividends in different size groups of total income, but it seems reasonable to assume that interest payments alone would be less concentrated in top ranges than are dividends.[19]

So far as dividends are concerned, however, it is undoubtedly true that a reduction in the importance of this type of income must have worsened the relative position of the top income ranges. The proportion of profit distributed as dividends has in recent years (and particularly in the earlier post-war years) been much lower than in the late inter-war period in most countries, and corporate savings have generally increased substantially more than has national income.[20] If account were taken of retained company profits the deterioration in the relative position of the top income groups would be much less marked. Estimates made for the United Kingdom [21] indicate that the loss between 1938 and 1947 in the share of total pre-tax income held by the top five per cent of income recipients is reduced by one-half when undistributed profits are imputed to shareholders. It is unlikely that the effect of such an adjustment would be of the same order in the other four countries considered here. Dividends are a less important source of income in top income ranges, and the decline since before the war in the proportion of profits distributed as dividends appears to have been more moderate in these countries than in the United Kingdom—factors which may partly explain why the top income ranges have fared better in these countries than in the United Kingdom. Sweden is an exception to this; the deterioration in the relative position of top income-groups there appears to have been even more pronounced than in the United Kingdom.

Little is known statistically about the extent to which the decline in the upper group shares may reflect a more widespread tendency towards tax avoidance and tax evasion. The high taxation of income in post-war years has certainly increased the inducement to withhold income from assessment, whether this takes the form of fraudulent under-reporting on the part of the taxpayer, of large expense accounts and compensations in kind to business executives, or of transfers of income-earning assets to other members of the family

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income tax (excluding income assessed for the wage tax) was nearly 10 times the 1950 level in 1938. The western German figures are not only very low in general when compared to the situation in pre-war years, but the distribution by ranges may also not be a reliable guide to the situation in more normal years.

[19] The Swedish figures for dividends only in Table 4 confirm this; it is seen that property incomes other than rent and dividends are relatively much less important in high than in low income ranges.

[20] See the SURVEY for 1955, page 95, and Chapter VIII of this SURVEY.

[21] Dudley Seers, *The Levelling of Incomes since 1938.*

the population of working age have, on the whole, been rather modest. The population of active age continued to decline slightly in France [16] and Belgium, and only limited increases have occurred elsewhere, except in the Netherlands and Italy.

Relief to the pressure on manpower resources through immigration was a particularly important factor in western Germany, with an inflow of about 400,000 persons, mostly from eastern Germany, of whom roughly 60 per cent may be considered as being of working age. In Sweden, the number of foreign workers employed reached a record level of 135,000 in January 1957.[17] In Switzerland, the manpower shortage was also mitigated by the admission during the year of 29,000 permanent immigrants and of a large number of seasonal workers. Immigration into France was of a more marginal character, but it more than offset the slight decline in the population of working age. The western European countries of emigration were Italy, which provided more than 70 per cent of total European emigration, the Netherlands, Austria, Finland, Denmark and Norway.

At the end of 1955 a significant proportion of unemployment persisted only in Denmark, Belgium, Austria and western Germany, leaving aside the chronic problem of Italy and of the under-developed countries of southern Europe. In Denmark the employment situation further deteriorated in 1956, but a marked improvement occurred during recent months, bringing employment to the same level as at the end of 1955. In the countries where employment continued to increase, the reduction in average unemployment was either nil—as in Austria—or rather small, as in western Germany and Belgium. The main sources from which additional manpower was drawn were the inactive population, immigration and, as can be seen from Chart 3, agriculture.

The largest expansion in the occupied labour force occurred in the countries where the increase in industrial production had been particularly rapid—that is, in the Netherlands, Belgium, Austria and western Germany. But parallel expansions of industrial production and of employment are by no means universal. In France—one of the countries where industrial production increased most—employment showed only a very modest rise. Italy and Norway are the two other countries with high rates of industrial expansion and only insignificant employment increases—a disturbing fact in the case of Italy, which continues to suffer from mass unemployment. A variety of factors, such as the change in industrial structure towards more capital-intensive branches, the adoption of more modern techniques, more efficient organization and heavy investment undertaken in the past few years, have placed those countries in a special position.

In the other countries, where these factors have played a much smaller role, the expansion of production was much more dependent upon an increase in employment; but there is little evidence that overall manpower shortages constituted a real bottleneck to industrial expansion even at the height of the boom. The manpower situation seems to have played an indirect rather than a direct role in slowing down industrial output, in the sense that it has been one of the factors determining governments to adopt disinflationary policies. It would nevertheless be unrealistic to assume that in the absence of such policies the expansion of employment in full-employment countries could have been much faster than in fact it has been. The possibilities of recruiting large additional manpower resources quickly in such countries are limited, since they are determined by structural and social changes such as the rationalization of low-productivity sectors and the mechanization of agriculture, which are difficult to speed up beyond a certain limit. The possibilities of drawing into the labour market a larger proportion of the inactive population naturally become more restricted after a considerable period of continuing pressure on labour reserves, as the elements among the normally inactive population which respond readily to the demand for additional labour become absorbed into employment. There are, moreover, institutional obstacles to widening the scope for the participation of women in economic activity, the removal of which takes time.

The global approach to the problem of manpower shortage is in any case inadequate, since in the majority of countries labour shortages are limited to special sectors such as building and are particularly acute for some types of skilled labour with special aptitudes and training. The shortage of highly qualified technical manpower, so much in evidence today, threatens to be particularly serious in countries where the industrial apparatus is working at physical capacity limits and where further expansion can rely only to a limited extent on increases in labour supplies. In such a situation an expansion of production is largely dependent on the introduction of more modern and rational techniques and this, in turn, involves the development of industrial research and an increased availability of skilled labour.

This problem, however important it may be in a longer perspective, does not present itself at the end of 1956 in as acute a form as might have been expected at the beginning of the year. The easing of the pressure

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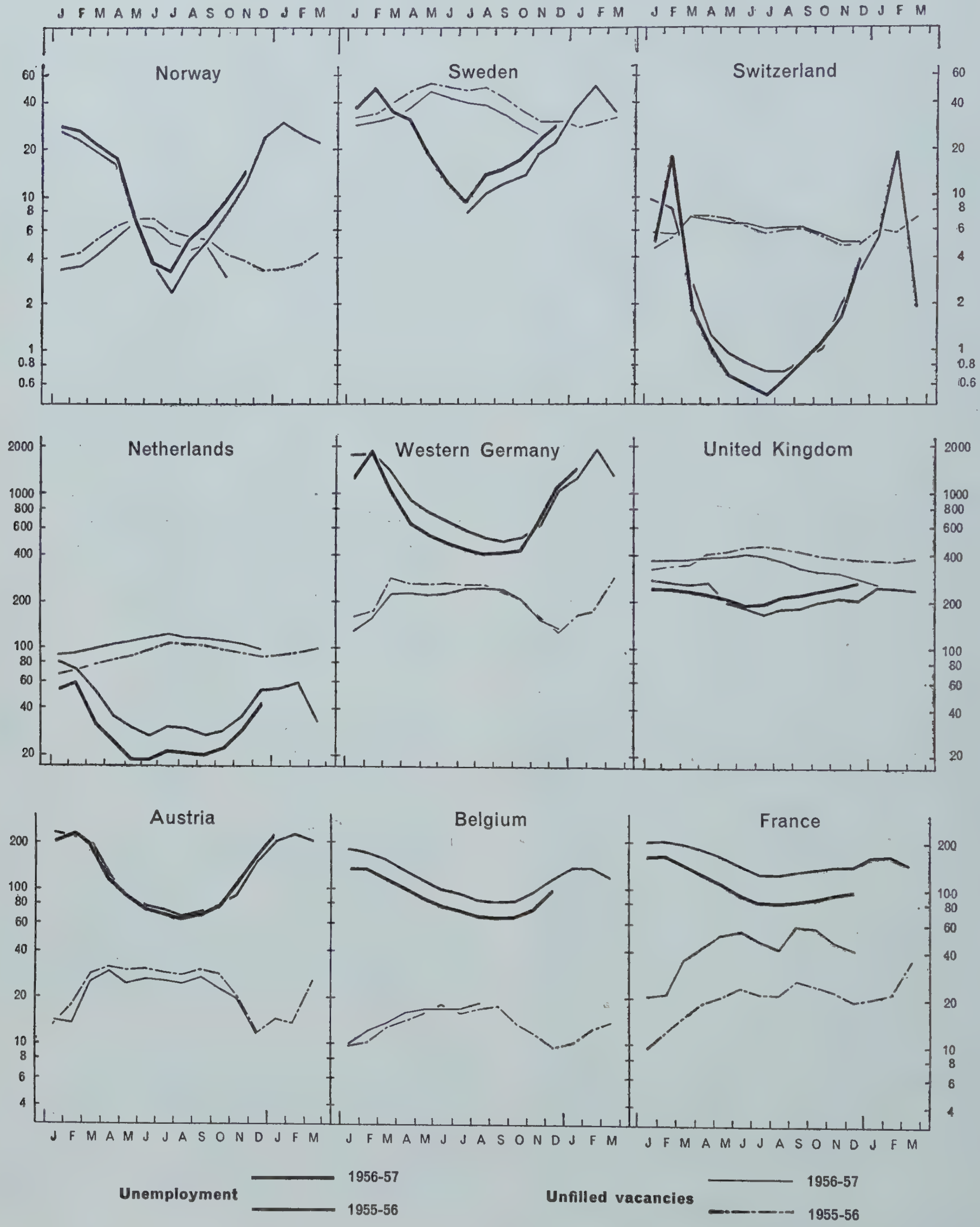
[16] The situation was, however, aggravated by call-up for the military forces.

[17] After the introduction of a common Scandinavian labour market in summer 1954, the influx of workers, mainly from Denmark and Finland, increased and at the beginning of 1957 as many as 89,000 workers from the other Scandinavian countries were employed in Sweden.

CHART 2

Total unemployment and unfilled vacancies in selected European countries

Thousands — Semi-logarithmic scale



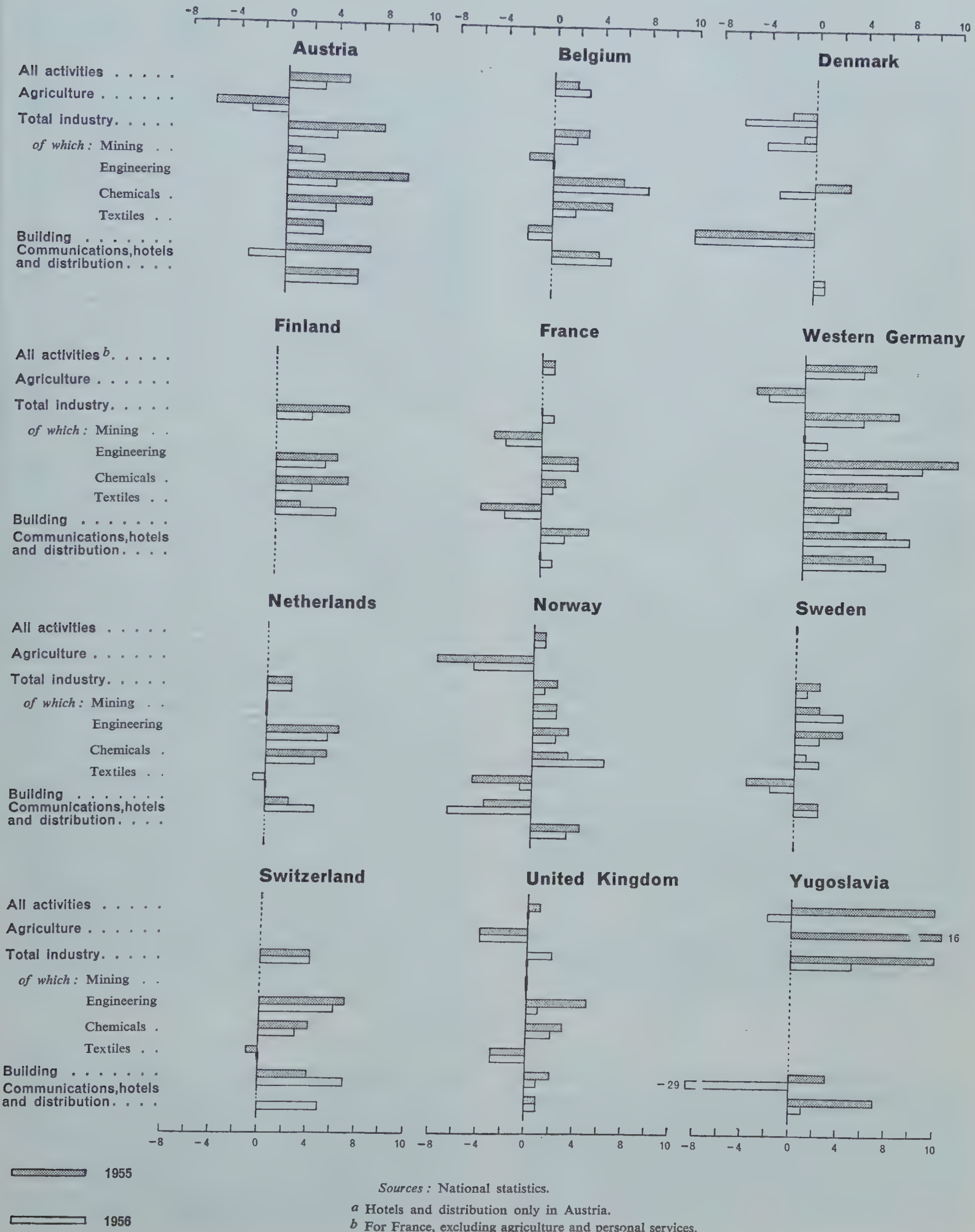
Sources : National statistics.

NOTE. — The figures constitute a reliable indication of trends in each country, but do not permit a comparison between countries of absolute levels of unemployment or unfilled vacancies.

CHART 3

Changes in the employment structure of selected western European countries

Percentage increase over corresponding period of previous year



Sources : National statistics.

[a] Hotels and distribution only in Austria.

[b] For France, excluding agriculture and personal services.

of demand in the labour market is reflected in the decline in unfilled vacancies and in the simultaneous increase in unemployment in the majority of countries, shown in Chart 2, which became accentuated in the latter part of 1956. Another indication is the reduction in hours worked, which became more widespread in many countries in recent months. At present, even more clearly than in the summer, it appears that in most western European countries with the exception of France,[18] the Netherlands and Switzerland, deflationary policies and not the supply of manpower are the limiting factor to economic expansion.

The main shifts in the pattern of employment are shown in Chart 3. One feature which emerges clearly is the extent to which agriculture continues to release manpower to other sectors. No satisfactory data are available to indicate shifts in the distribution of manpower within the industrial sector, either between investment-goods and consumer-goods industries or *a fortiori* between production of durable consumer goods and investment goods within the engineering sector. The rate of growth in employment in the engineering industry slowed down almost everywhere; but whereas the declining trend was reversed in Denmark during the year, in the United Kingdom there was a sharp fall in employment in vehicle production and some decline in other engineering industries over the twelve months.

The textile industry still released manpower in most countries, but this movement lost force more recently. As already pointed out, a recovery took place in textile production in many western European countries, and the discrepancy between the movement of production and employment in that sector was due to increases in productivity. Building continued to attract manpower in all countries listed with the exception of Austria, Yugoslavia and Norway. In Norway, this was the outcome of specific measures adopted to curtail investment and, in particular, house-building. The exodus of workers from the mining sector and the difficulty of attracting young workers entering the labour market have hampered the expansion of coal production in a number of countries.

TABLE 7

Changes in numbers employed in the United Kingdom

Thousands

	End-October 1955	End-October 1956	Absolute change
Basic industries (excluding transport)	2 277	2 259	−18
Total manufacturing	9 358	9 265	−93
Of which :			
Vehicles	1 252	1 220	−32
Engineering, metal goods and precision instruments	2 815	2 804	−11
Chemicals	528	530	2
Textiles	950	931	−19
Clothing (including footwear)	676	671	−5
Building and contracting	1 498	1 506	8
Distributive trades	2 857	2 877	20
Professional, financial and miscellaneous services	4 117	4 135	18
Public administration	1 287	1 291	4
Transport	1 707	1 718	11
Total civil employment	23 101	23 051	−50

Source : Ministry of Labour Gazette, December 1956.

Data about changes in employment in the services sector are scattered and fragmentary. The information available suggests that such general slowing down in the growth of aggregate demand as has occurred did not affect output or employment in the services sector. This is strikingly illustrated by developments in the United Kingdom. The release of manpower from the motor vehicle industry and from other durable consumer goods branches was not offset by increases in employment in other engineering industries: in fact, the figures in Table 7 suggest that a large part of the manpower released from certain branches of manufacturing went to distributive trades, professional, financial and other services and to transport. Thus, while deflationary policies succeeded in producing a certain amount of slack in the economy, and in reducing the general pressure on manpower resources, they failed to reach another goal which was of primary importance in the United Kingdom—namely, that of diverting workers from the contracting industries to those, mainly the export industries, where it was hoped that production would be stimulated.

3. INVESTMENT DEMAND

As has already been pointed out, the rate of increase in investment activity slowed down in most western European industrial countries in the course of 1956. For the year as a whole, investment expenditure nevertheless showed a considerable expansion over the 1955 level in western Germany, France, the Netherlands and Switzerland. In the course of the year a striking change occurred in the United Kingdom and in western Germany. In the United Kingdom, the rate of growth of real gross fixed investment declined steadily in each quarter of 1956 compared with the corresponding quarter of 1955, and in the third quarter the increase was negligible. In western Germany, the annual rate of expansion levelled off from about

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[18] Among the firms questioned in a recent I.N.S.E.E. inquiry (*op. cit.*), 50 per cent reported manpower shortage as a limiting factor in November, as against 42 per cent in May 1956.

12 per cent in the first half of 1956 to only about 4 per cent in the third quarter.

The pattern of investment varied greatly from country to country. National accounts data are not sufficiently up to date, and not sufficiently detailed in most countries, to permit a separation of investment in dwellings from industrial construction,[18] but indicators of building activity brought together in Table 8 point to the fact that, in a number of countries where economic policies aimed at slowing down over-all expansion, housing was selected for particular action so as to release resources from dwelling to industrial construction and thus to avoid an excessive impact on long-term industrial expansion. In addition to the effect of over-all credit restrictions in many countries, reductions in housing subsidies and direct restrictions on building credits have limited the construction of dwellings in Denmark, Norway and the United Kingdom.[19] Difficulties of obtaining finance, and high building costs, have slowed down house-building in Finland, and the lack of skilled workers, as well as high building costs, has been the difficulty in Austria.

In France, the Netherlands and western Germany, three of the countries where special efforts are made to satisfy urgent housing needs, various factors have kept the amount of house-building below the desired levels. In France and the Netherlands the shortage of building workers has been a limiting factor and, in France, the fact that building resources were spread too thinly over too many projects has made house-building slow and expensive.[20] In western Germany, credit restrictions have affected the construction of dwellings very severely, as can be seen from the rapidly declining trend in authorizations, and the Government has recently taken a variety of measures to counteract the shortage of private funds for this purpose.

In Switzerland the construction of dwellings continued to expand, but signs of saturation in various places are beginning to be reflected in a decline of authorizations. In Italy, also, house-building activity continued to expand at a rapid rate, but recently authorizations for new construction point to a much slower growth in 1957. In Norway a further fall in the construction of dwellings is expected in 1957, and in the United Kingdom the ending of a general subsidy on new houses, together with the better utilization and maintenance of existing houses expected to result from the revised rent control legislation, also point to a further contraction in house-building activity. On the whole, therefore, prospects are not too bright in this part of the investment sector in most countries.

TABLE 8

Indicators of building activity in certain western European countries

Dwellings and industrial building
Percentage change since corresponding period of previous year

	Dwellings		Industrial building	
	1955	1956 [a]	1955	1956 [a]
Belgium				
Authorizations . .	−5	+5	+10 [b]	+10 [b]
Completions . . .	−6	−5	+4 [b]	+8 [b]
Denmark				
Authorizations . .	−15	+27	. .	. .
Starts	−26	+33	+5	−3
Completions . . .	+7	−29	+8	−13
France				
Authorizations . .	+5	+29	. .	. .
Completions . . .	+30	+14	. .	. .
Western Germany				
Authorizations . .	+1	−9	+40 [c]	+17 [c]
Completions . . .	+1	+8	+16 [b]	+20 [b]
Italy				
Authorizations . .	+4	+4	−8 [b]	−1 [b]
Completions . . .	+25	+12	+12 [b]	−15 [b]
Netherlands				
Authorizations . .	+13	+24	+19	+30
Starts	+25	+13	+22	+43
Completions . . .	−11	+12	+48	+11
Norway				
Authorizations . .	−18	−11	−20	+29
Completions . . .	−9	−13	−23	−17
Sweden				
Authorizations . .	+3	−7	−12	+10
Starts	−5	+3	. .	. .
Completions . . .	−9	−3	−52	+31
Switzerland				
Authorizations . .	+8	−22	+16	+10
Completions . . .	+1	−1	. .	. .
United Kingdom				
Authorizations . .	. .	. .	+29	−22
Starts	−5	−11	+42	−19
Completions . . .	−9	−5	+4	+21
Yugoslavia				
Completions . . .	. .	. .	+5	−26

Sources : National statistics.
[a] As many months as were available, generally 9–12 months.
[b] All non-residential buildings.
[c] Building for economic activity.

Such indications as are available on current trends in industry suggest that, as a result of the deflationary

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[18] Neither do they make it possible to isolate public from private investment.

[19] In Denmark, the rise in authorizations suggests a revival in house-building activity in the future.

[20] The number of dwellings completed in 1956 was about 240,000. While this represents an increase of 30,000 above the completions in 1955, the figure remains far below what might have been expected from starts—had they been completed in a reasonable period of time—and also far below what are considered minimum requirements. Furthermore, the Paris region has, on both counts, lagged behind the rest of the country.

TABLE 9

Orders received and stock[a] of orders in metal-using industries

Volume or value — 1953 = 100

	Total orders					Home market orders					Export orders				
	1955	1956				1955	1956				1955	1956			
		1st qtr.	2nd qtr.	3rd qtr.	Oct.–Nov.		1st qtr.	2nd qtr.	3rd qtr.	Oct.–Nov.		1st qtr.	2nd qtr.	3rd qtr.	Oct.– Nov.
Belgium:															
Shipbuilding	174	547	397	260	395										
Machinery	135	187	162	159	170										
Vehicles	136	175	189	148	127										
Electrotechnical equipment	114	128	122	142	129										
Heavy engineering	138	175	168	168	195										
Total metal-using industries excluding shipbuilding	126	158	154	155	164										
Western Germany:															
Machinery	(173)	(175)	(175)	(154)	(182)	180	180	178	155	170	175	197	203	187	267
Vehicles	(161)	(178)	(193)	(168)	(158)	134	144	154	134	117	207	246	282	229	276
Electrotechnical equipment	(156)	(157)	(163)	(152)	(216)	152	154	162	152	171	180	207	225	206	305
Metal goods	(143)	(137)	(153)	(146)	(161)	141	139	155	149	162	149	150	163	149	189
Steel constructions	(131)	(123)	(169)	(133)	(167)[b]	135	131	135	143	108[b]	95	95	406	96	601
Total metal-using industries	(161)	(151)	(156)	(142)	(172)	155	158	165	149	157	176	201	213	191	257
United Kingdom:															
Machine tools	191	202	168	160	162	197	205	169	151	151	172	143	126	142	175
Machine tools	*127*	*142*	*145*	*144*	*140*										
Oil equipment	184	229	216	235											
Shipbuilding	*(105)*	*(96)*	*(95)*	*(101)*	*(117)*[c]										
Shipbuilding	(449)	(243)	(336)	(396)											
Netherlands:															
Shipbuilding	*126*	*161*	*167*	*173*	..	*142*	*187*	*184*	*190*	..	*105*	*130*	*147*	*151*	..
Machinery	*126*	*142*	*145*	*158*	..	*128*	*140*	*150*	*170*	..	*123*	*145*	*132*	*132*	..
Transport equipment excluding shipbuilding	*114*	*152*	*159*	*149*	..	*121*	*157*	*167*	*148*	..	*119*	*131*	*121*	*154*	..
Electrotechnical equipment	*130*	*139*	*160*	*152*	..	*135*	*152*	*178*	*163*	..	*126*	*128*	*146*	*145*	..
Total metal-using industries	*127*	*153*	*161*	*164*	..	*132*	*162*	*168*	*170*	..	*119*	*138*	*150*	*152*	..

Sources : National statistics.

[a] Stocks of orders at the end of period.

[b] October.

[c] Fourth quarter.

Key :
123 Value index of orders received;
(123) Volume index of orders received;
123 Value index of stock of orders;
(123) Volume index of stock of orders.

policies in force in most countries, 1957 is likely to show little further growth of investment. In the United Kingdom, where gross fixed investment increased by 3 per cent in 1956, the Board of Trade inquiry into investment expenditure by manufacturing industry resulted in an estimate of only a 1 per cent increase for 1957, compared with the expected expenditure for 1956.[21] Expenditure on plant, equipment and vehicles is expected to rise by 3 per cent and that on building work to decline by 7 per cent. Authorizations for industrial building have been falling throughout 1956 and the decline in new home market orders for machine tools seen in Table 9 points in the direction of a drop in investment demand.[22] In western Germany, the levelling off in investment growth in the third quarter is reported to have turned into an absolute decline in the last months of 1956. Authorizations for industrial building have slowed down since the second quarter, and the decline of domestic orders in the major branches of the capital-goods industry has more than offset the continuing rise in export orders.[22a] In France, about 44 per cent of the firms replying to the I.N.S.E.E. inquiry[23] expected about the same level of investment in 1957 as in 1956, and the rest were about equally divided between those expecting an increase and those expecting a decline. In Austria, the main factors of expansion in 1957 are expected to remain private consumption and exports. In that country, one of the major problems for the future development of investment activity is the difficulty of obtaining finance in the absence of a well-functioning capital market.

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[21] *Board of Trade Journal*, 21 December 1956.

[22] In the months September to November, total new orders have been less than deliveries so that order books were reduced, but they still represent 12 months' deliveries at the November rate.

In Sweden the National Budget Delegation abstained from making a complete prognosis for economic developments in 1957 in view of the uncertain international situation and the difficulty of foreseeing results of the wage negotiations under way at the time of publication of the national budget. It is estimated, however, that gross fixed investment is to speed up slightly from a 2 per cent increase in 1956 to an increase of 3½ per cent in 1957, but private investment is expected to increase by only 2½ per cent and investment in machinery and equipment by 3 per cent.

In Norway, on the other hand, it is expected that the rate of growth of gross fixed investment will speed up again from a mere 1 per cent in 1956 to a 4 per cent increase in 1957.[24] The estimated increases for the three major investment sectors are: almost 3 per cent for building and construction, 5 per cent for machinery and transport and 5 per cent for ships. Investment in manufacturing industry is anticipated to go up by 10 per cent over the 1956 level. No major reversal in over-all restrictive policies is intended to bring about these changes; but larger building quotas have been granted to manufacturing industry, customs-free imports have been reintroduced for machinery, particularly for consumer goods industries and, finally, the boom conditions in the export industries will make it possible for them to finance a greater volume of investment outlays.

[22a] The sharp increases in home market orders in November are partly due to seasonal and political factors. They may, however, also reflect the increased demand for investment goods on the part of consumer-goods industries. See " Die wirtschaftliche Lage in der Bundesrepublik Deutschland ", December 1956, Der Bundesminister fuer Wirtschaft.

[23] See " Résultats sommaires de l'enquête sur les perspectives économiques ", I.N.S.E.E., November 1956.

[24] See national budget for 1957.

4. Consumer Demand

The Development of Real Wages

The effects of changes in incomes on consumption levels cannot be very satisfactorily traced in the absence of sufficiently up-to-date statistics on non-wage incomes. With this important reservation, Table 10 shows data bearing on the impact of changes in real earnings in industry, and in the industrial wage bill in real terms, on the volume of private consumption.

The rise in money earnings was accelerated in 1956, as compared with 1955, in practically all the countries shown in Chart 4. All the three forms of wage inflation—an excess demand for labour, an adjustment to rises in the cost of living and autonomous wage increases due to the strong bargaining position of trade unions[25]—were responsible, either separately or in combination, for speeding up the rise in money wages. The increases were steepest in Belgium and Finland. In Belgium, wages had remained more or less stable for some time past and, while part of the recent increase was an automatic adjustment to the rise in the cost of living, most of it is explained by the fact that wage demands to enable workers to benefit from the steep rise in productivity had become more pressing under continuing boom conditions. In Finland, the sharp increase in prices following the abolition of price control at the end of 1955 and the consequent general strike led to wage concessions which raised money earnings by 12 per cent. Switzerland is now the only country where both prices and money wages have been rising only very slowly over the last three years of expansion and where wage demands continue to be modest in spite of the high level of activity and the shortage of manpower.

Since cost-of-living increases also speeded up in the first half of 1956,[26] the rise in the average level of real earnings of industrial workers between 1955 and 1956 was smaller than in the previous year except in Belgium, the Netherlands, France and western Germany.

The slower increase in real earnings in most countries was also reflected in the changes in the industrial wage bill in real terms[27] between 1955 and 1956, and this tendency was reinforced in the United Kingdom and Denmark by higher unemployment and more short-time work. In western Germany, where the rise in real earnings was greater than that registered between 1954 and 1955, the increase of the industrial wage bill has nevertheless slowed down somewhat in recent months because the levelling off of

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[25] See section on " The question of wage inflation " in Chapter 5 of the *Economic Survey of Europe in 1955*.

[26] Price increases will be analysed in Section 6.

[27] The figures shown in the table should be read with considerable caution because of differences in coverage of the series on real earnings on the one hand and employment or hours worked on the other.

TABLE 10

Industrial earnings and private consumption

Percentage increase over corresponding period of previous year

Country		Real earnings [a, b]	Industrial wage bill in real terms [b, c]	Volume of private consumption [d]
Austria	1954	4	7	10
	1955	3	14	10
	1956 [e]	2	8	5
Belgium . . .	1954	2	*1*	2
	1955	2	*5*	1
	1956 [e]	10 [f]	*11* [f]	. .
Denmark . . .	1954	2	*6*	6
	1955	−1	*−3*	−2
	1956 [e]	—	*−8*	. .
Finland	1954	2	13	9
	1955	8	14	11
	1956 [e]	—	*5*	5
France	1954	7 [f]	*9* [f]	5
	1955	*7* [f]	*8* [f]	8
	1956 [e]	7 [f]	*9* [f]	5
Western Germany	1954	3	9	8
	1955	5	13	11
	1956 [e]	6	12	10
Italy	1954	1	3	2
	1955	1	3	4
	1956 [e]	1	3	. .
Netherlands . .	1954	7	13	6
	1955	5	9	7
	1956 [e]	7 *	12	8
Norway	1954	1	*3*	5
	1955	5	*7*	4
	1956 [e]	3	*4*	3
Sweden	1954	3	5	4
	1955	4	7	3
	1956 [e]	3	*4*	2
Switzerland . .	1954	1	*3*	. .
	1955	2	*6*	. .
	1956 [e]	*1* [f]	*5* [f]	. .
United Kingdom	1954	4	*8*	5
	1955	3	*6*	3
	1956 [e]	3 *	*3*	1
Yugoslavia . .	1954	9	. .	13
	1955	−5	. .	7
	1956 [e]	—	. .	−1

Sources and methods : See Appendix B.

[a] In general, average hourly earnings in manufacturing industry.

[b] Deflated with the cost-of living index.

[c] Based on wage bill as published in national statistics, with the exception of figures in italics derived from hourly earnings, taking into account changes in industrial employment and the working week.

[d] Based on national accounts.

[e] Data cover as many months as are available (generally 9–11 months).

[f] Based on wage rates instead of earnings.

expansion in the investment sector has resulted in a slower increase in employment and in a reduction of overtime. As a result of the rise in real wages and in man-hours worked, the cumulative increase in the real wage bill in industry over the last three years amounts to about 30 per cent in France and Austria and even more in western Germany, the Netherlands and Finland. In Denmark, at the other extreme, the industrial wage bill now seems to be smaller, in real terms, than it was three years ago.

The volume of total private consumption moved, on the whole, in the same direction as the industrial wage bill, and the rise slowed down in all countries with the exception of the Netherlands, Switzerland, western Germany and probably Belgium ; but in view of the incompleteness of income data, divergencies in the scale of change in the two series must, of course, be expected in all countries. Moreover, these divergencies differ from country to country, depending on the relative importance of other incomes, particularly agricultural incomes.

The Changes in the Pattern of Consumption

Changes in the volume and pattern of expenditure on consumer goods as derived from retail sales are shown in Table 11. Among the countries listed, increases in total retail sales continued to be very rapid in western Germany, France and the Netherlands. The stabilization of the rate of increase in Sweden and Norway, the very slight increase in the United Kingdom and the stagnation of retail sales in Denmark reflect the policies adopted in those countries to restrain the growth of consumption.

In most countries the boom in consumer durables continued, and sales of household durables and passenger cars rose more rapidly than those of other consumer goods. But the underlying tendency for a shift in demand towards consumer durables with rising incomes was checked by policy measures affecting hire-purchase trading in the United Kingdom and, in the Scandinavian countries, by direct taxes on imported cars. These restrictions have been very effective in the United Kingdom in curtailing sales of durable household goods or in slowing down their expansion, and there, as also in Norway, restrictions affected the sales of passenger cars most. The drop in the rate of increase of motor-car sales in Austria was due to a temporary saturation of the market after the very rapid increase during the last few years.[28] This suggests that even in the absence of any restrictive measures, a boom in the demand for durable goods can suffer short-term setbacks, since replacement demand remains low for some time. On the other hand, the recent increase in sales of consumer durables in the United Kingdom, partly due to seasonal factors, and the increased sales of new passenger cars in Sweden confirm the well-known fact that when hire-purchase or other special restrictive measures have been in force for some time their initial severe impact on consumer demand tends to wear off.

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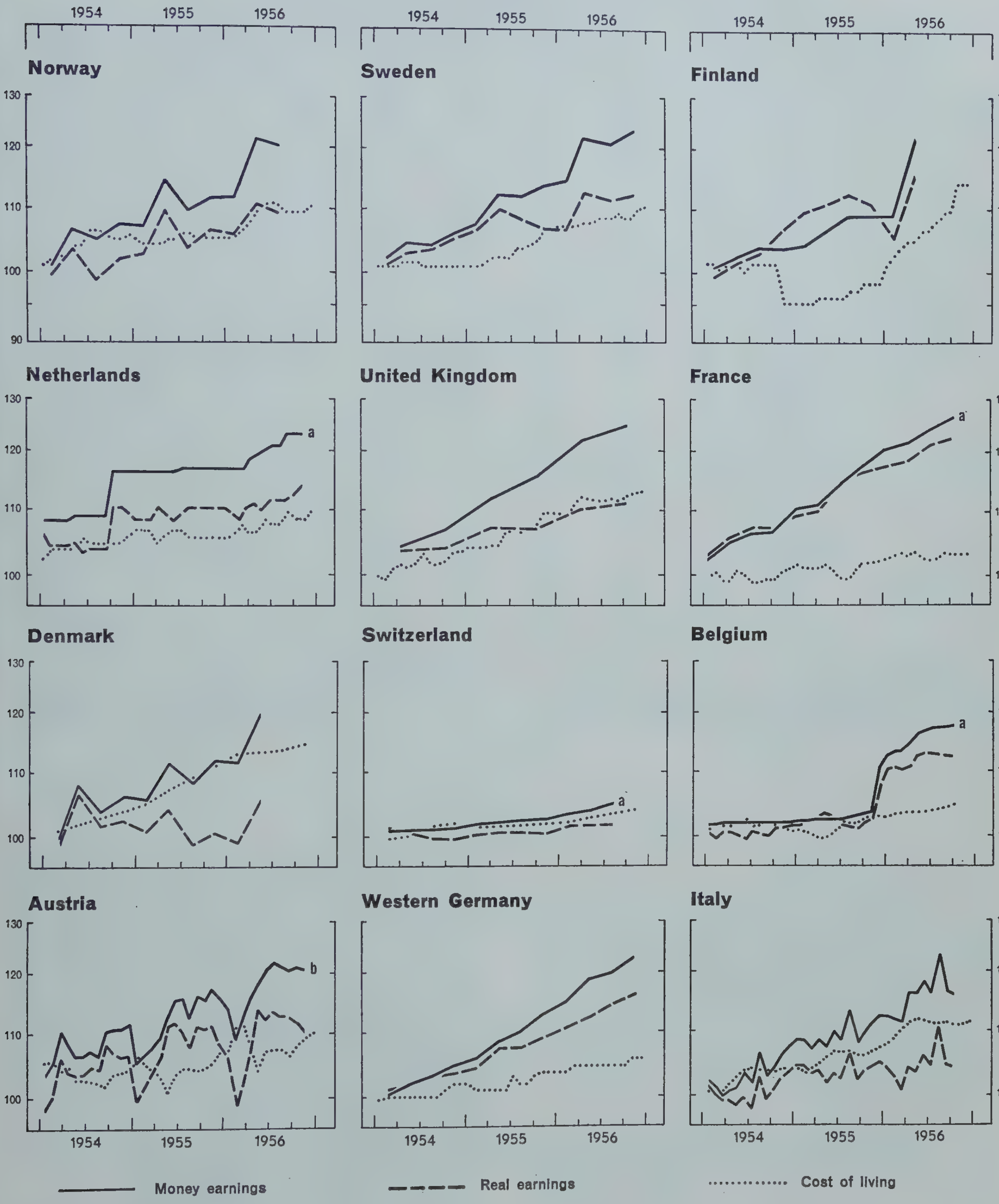
[28] The number of motor-cars per head is still very low, but the level and distribution of incomes are such as to make the market very narrow.

CHART 4

Earnings in manufacturing industry, and cost of living

Index numbers 1953=100
Semi-logarithmic scale



Sources : See Appendix B.

a Wage rates.
b Vienna only.

TABLE 11

Retail sales by commodity groups

Percentage increase over the corresponding period of previous year
Increase in volume except for italicized figures, which represent increases in value

Country	Year	Food[a]	Tobacco	Clothing	Furniture	Hardware	Electric appliances	TOTAL RETAIL SALES[b]	Passenger cars[c]	Motor-cycles, scooters[c]
Austria	1955	8	11	11	*18*	*19*	*28*	12	108	17
	1956[d]	4	11	6	*10*	*8*	*15*	5	10	−32
Denmark	1955	−3	—	−5	*−5*	*2*		−4	−25	. .
	1956[d]	—	*−1*	−1	—	*7*		—	5	. .
France	1955	4	3	5	15	7	*27*	6	25	9
	1956[d]	5	6	5	16	13	*24*	7	14	−17
Western Germany . .	1955	7	9	10	*14*	*14*	*16*	10	33	−24
	1956[d]	7	8	12	*15*	*13*	*18*	9	20	−33
Netherlands	1955	(6)	5	11	*13*	*11*	*18*	(7)	44	37
	1956[d]	(5)	7	18	*22*	*14*	*21*	(8)	13	—
Norway	1955	5	2	2	(3)	*10*		5	−15	−24
	1956[d]	6	4	6	. .	*8*		5	−5	−12
Sweden	1955	—	(3)	3	*−2*	*3*	*−1*	2	1	. .
	1956[d]	—	(4)	—	*4*	*3*	*11*	2	5	. .
Switzerland	1955	3	2	6	*30*	*12*	*8*	6	23	−13
	1956[d]	6	5	7	*13*	*11*	*5*	7	12	−20
United Kingdom . . .	1955	(1)	(2)	(5)	*6*	*11*	*13*	(3)	30	13
	1956[d]	(1)	(1)	(3)	*3*	*7*	*−3*	(1)	−11	−25

Sources: National statistics.

NOTE. — Figures in parentheses are based on consumers' expenditure, whereas other data are derived from retail sales statistics.

[a] In Denmark, western Germany and Switzerland sales of food also include sales of drink and tobacco.

[b] Excluding motor vehicles.

[c] Based on new registrations or available supplies.

[d] Data refer to as many months as are available, generally 10–12 months.

5. WESTERN EUROPE'S TRADE AND PAYMENTS

The Development of Imports

Total imports into western Europe continued to increase in 1956, although at a slower rate than in 1955, reflecting the slowing down of industrial expansion in many countries. This was true of all countries with the exception of the United Kingdom and Ireland, where imports dropped below their 1955 level.[28a] Increases were particularly sharp in France, the Netherlands and Finland, where the pressure of demand on resources continued to be intense.

The impact of the slower rate of growth of imports varied between different exporting areas. Imports from overseas, which had risen much more slowly than intra-European trade or industrial production until about the middle of 1955, then speeded up considerably as spare capacities in western Europe became more fully utilized; but during 1956, the levelling off of domestic expansion reduced the rate of growth both of imports from overseas and of intra-European trade. As can be seen from Table 12, imports from the United States rose most rapidly between 1955 and 1956, but the rise was not so great as that recorded between 1954 and 1955 (almost 40 per cent). The increase in 1956 was mainly accounted for by coal imports, and petroleum imports were also an important factor. There was also a sustained high rate of growth in imports from the predominantly mineral-producing countries overseas.

Changes in imports of foodstuffs and raw materials into the seven most important western European importing countries are shown in the table below, and in Appendix Tables X to XX, for selected commodities

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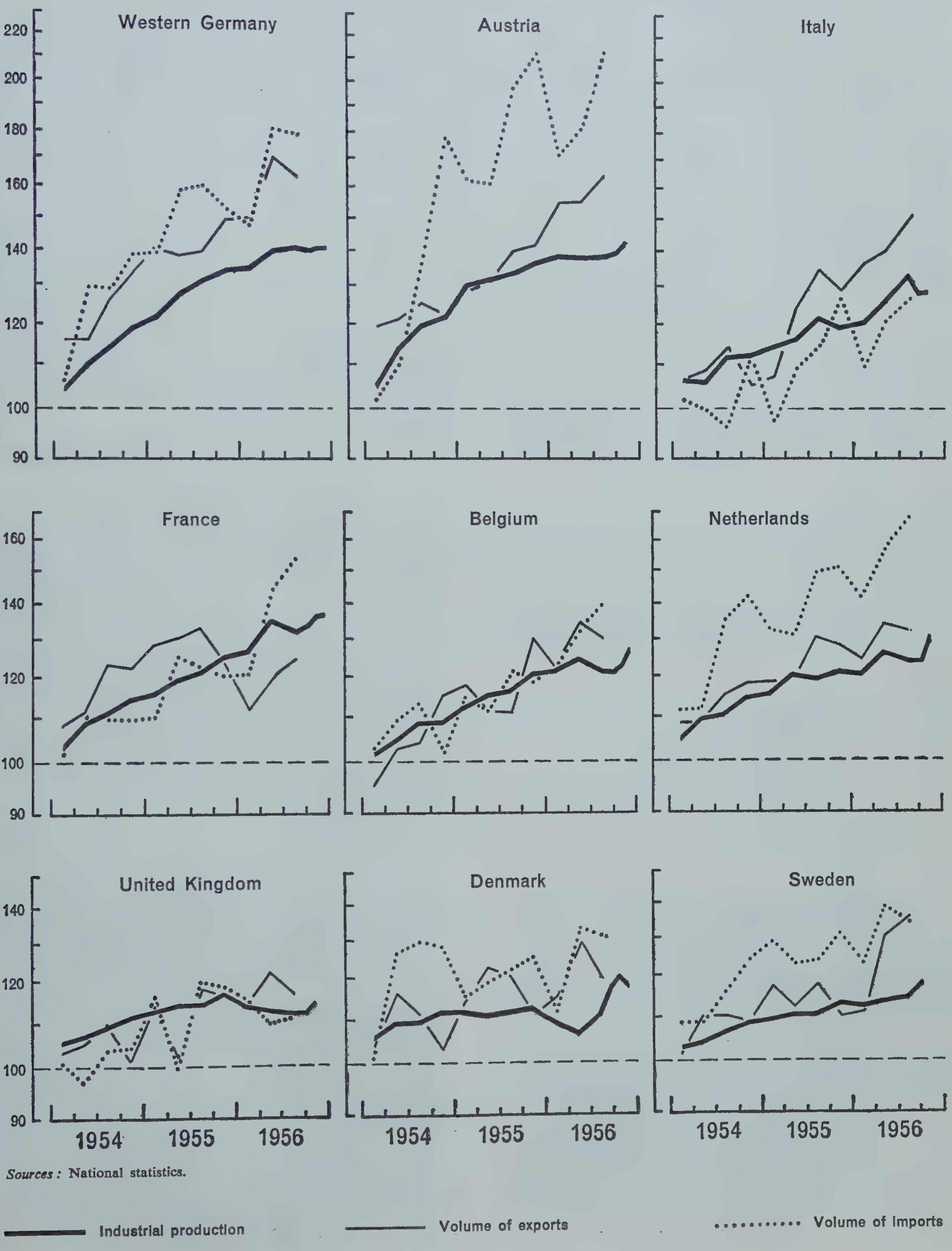
[28a] See Chart 5 and Appendix Table IV.

Chart 5

Recent trends of production and trade in selected western European countries

Index numbers (1953 = 100) — Adjusted for seasonal fluctuations
Semi-logarithmic scale



Sources: National statistics.

TABLE 12

World trade by area

Percentage share in world trade and percentage increase in value of trade over corresponding period of previous year

Importing area / Exporting area	Western Europe			United States			Other overseas countries			WORLD		
	Share in world trade in 1954	Increase in value		Share in world trade in 1954	Increase in value		Share in world trade in 1954	Increase in value		Share in world trade in 1954	Increase in value	
		Jan.–Sept. 1955	Jan.–Sept. 1956		Jan.–Sept. 1955	Jan.–Sept. 1956		Jan.–Sept. 1955	Jan.–Sept. 1956		Jan.–Sept. 1955	Jan.–Sept. 1956
Western Europe	24	16 [a]	11 [a]	3	15	20	16	6	8	43	11	11
Dollar area [b]	8	38	15	7	3	8	13	5 [c]	20 [c]	28	9 [d]	17 [d]
Other overseas countries exporting mainly:												
Agricultural products .	10	—	4	2	–3	15	6	. .	. .	18	— [d]	5 [d]
Mineral products . .	4	13	13	1	23	5	6	. .	. .	11	12 [d]	10 [d]
World	46	15	10	13	7	13	41	5	10	100	8 [d]	12 [d]

Sources and methods: See Appendix B.

NOTE. — Figures are based upon current values at c.i.f. prices for imports into western Europe and at f.o.b. prices for imports into other areas. Trade of the Soviet Union, eastern European countries and Mainland China with each other and the trade of Japan with all countries is excluded throughout.

[a] Including trade between western and eastern Europe.

[b] Excluding exports of "Special categories commodities" from the United States.

[c] Exports from the United States only.

[d] January-June.

accounting for over 30 per cent of the total imports into those countries in 1954/55. Imports of foodstuffs increased in volume between 1954/55 and 1955/56 by 6 per cent, and it is to be expected that during 1956/57 wheat imports will rise more sharply again following a poorer harvest in France and in some other western European countries.

Imports of Selected Commodities by Seven [a] Western European Countries

(Percentage increase in volume over corresponding period of previous twelve months)

Commodity group	*1954/55*	*1955/56*
Foodstuffs and industrial raw materials [b]	7	10
of which:		
Foodstuffs	2	6
Industrial raw materials . . .	9	11

Sources and methods: See Appendix B.

[a] Belgium-Luxembourg, France, western Germany, Italy, the Netherlands, Sweden and the United Kingdom.

[b] Wheat, sugar, coffee and tobacco; rubber, timber, wool, cotton, crude petroleum, refined petroleum and copper.

Among industrial raw materials, imports of petroleum and petroleum products rose particularly steeply, reflecting the greater requirements in western Europe in the face of the continuing difficulty of raising coal output. Wool imports also staged a recovery with the revival of wool textile production in many countries, whereas raw cotton imports showed no increase in the year as a whole as compared with 1955, as a result of the running down of stocks in the early part of the year, partly in anticipation of continuing price declines. However, in the latter part of 1956 a remarkable change took place in the cotton trade. The factors which contributed to this reversal were the rise in consumption, the impossibility of running down stocks indefinitely, and the restoration of confidence in the stability of world cotton prices following the stabilization of American-type raw cotton prices at a level which, furthermore, eliminated most of the price advantages enjoyed by Indian mills in their purchases of raw cotton.

The Trend of Exports

The volume of western Europe's exports increased by 7 per cent from the first nine months of 1955 to the same period in 1956, as compared with an increase of 10 per cent from 1954 to 1955. The increase in exports to the United States was particularly marked.

All major exporting countries shared in the rise with the exception of France. In France, a bad harvest on the one hand and growing home demand for most types of goods on the other reduced exportable surpluses of cereals, raw materials and manufactures. The growth of Finnish exports was slowed down by the strike in March and the decline in demand for Finnish timber products. Exports also levelled off in the Netherlands more recently because of the increased pull of the home market. By contrast, the

TABLE 13

Exports of selected western European countries, by main commodity groups

Millions of dollars at January-September 1955 f.o.b. prices

Exporting country	Food, drink and tobacco		Raw materials and fuels		Metal manufactures		Chemical products		Textile goods	
	Jan.–Sept. 1955	1956	Jan.–Sept. 1955	1956	Jan.–Sept. 1955	1956	Jan.–Sept. 1955	1956	Jan.–Sept. 1955	1956
United Kingdom	358	362	1 074	1 161	337	316	482	518	755	694
France	519	442	1 166	1 028	89	74	259	234	386	354
Western Germany	107	135	1 006	1 203	224	242	494	572	279	287
Belgium-Luxembourg	70	93	1 012	1 132	94	78	137	153	238	280
Netherlands	589	614	531	576	32	38	141	161	173	193
Italy	288	315	272	313	35	56	98	116	245	307
Denmark	510	484	63	77	10	9	19	25	14	15
Norway	104	115	214	231	7	7	44	42	7	9
Sweden	40	36	658	697	58	58	25	30	15	17
Austria	8	17	249	293	24	29	23	25	56	65
Total of countries listed	2 593	2 613	6 245	6 711	910	907	1 722	1 876	2 168	2 221

Exporting country	Machinery		Transport equipment		Other commodities		Total exports	
	Jan.–Sept. 1955	1956	Jan.–Sept. 1955	1956	Jan.–Sept. 1955	1956	Jan.–Sept. 1955	1956
United Kingdom	1 208	1 332	1 017	1 191	713	794	5 944	6 368
France	301	297	274	285	441	404	3 435	3 118
Western Germany	1 107	1 280	629	784	537	609	4 383	5 112
Belgium-Luxembourg	131	146	94	111	203	249	1 979	2 242
Netherlands	201	221	101	78	168	187	1 936	2 068
Italy	140	169	125	163	145	142	1 348	1 581
Denmark	93	100	22	31	23	27	754	768
Norway	9	10	25	46	62	66	472	526
Sweden	168	203	109	133	168	187	1 241	1 361
Austria	42	56	21	23	79	86	502	594
Total of countries listed	3 400	3 814	2 417	2 845	2 539	2 751	21 994	23 738

Sources : Appendix Table VIII and national trade statistics. For further details, see Appendix B.

rise in exports was especially steep in Austria and Yugoslavia, where deflationary policies made more commodities available, and in Norway, where large investments had increased the capacity in the base metals industries. The export expansion also continued at a high rate in western Germany [29] and in Belgium.

As can be seen from Table 13, increases in total western European exports were particularly large for machinery and transport equipment, and amounted (for ten major countries) to about $400 million for each of the two groups. Western Germany registered large advances in both commodity groups and is closely approaching the United Kingdom in importance as a supplier of machinery. Textile exports showed some advance, with large increases from Belgium and Italy more than offsetting the decline in British and French sales. The large increase in raw material and fuel deliveries was mainly accounted for by bigger iron and steel exports from Belgium, western Germany and Italy.

The future trend of overseas exports depends largely on the development of import demand in North America and in the overseas primary producing countries. The economic expansion in the United States which was resumed in force at the beginning of

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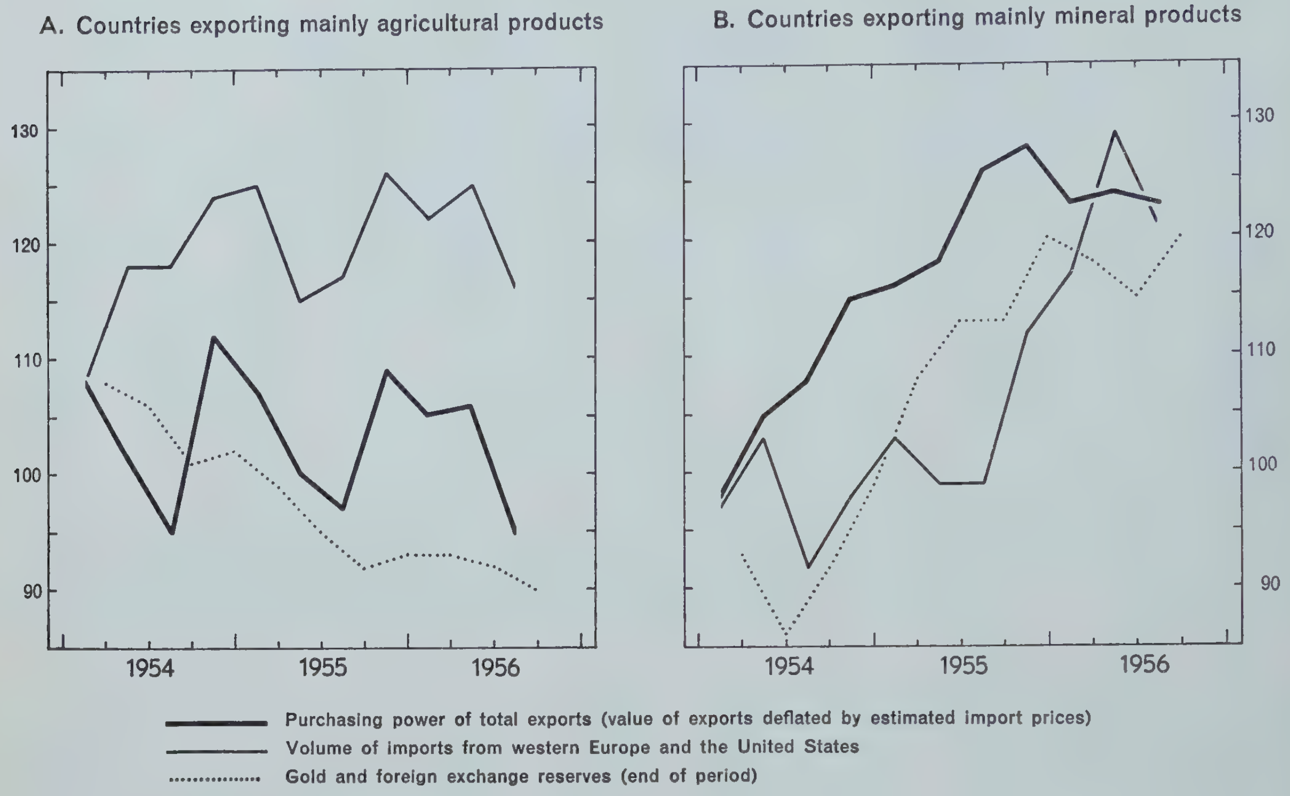
[29] For a discussion of the reasons of the more rapid increase in west German export trade than in that of France and the United Kingdom, see *Economic Bulletin for Europe*, Vol. 8, No. 3.

CHART 6

Purchasing power of exports of non-dollar overseas countries

Index numbers, 1953 = 100



A. Countries exporting mainly agricultural products

B. Countries exporting mainly mineral products

Sources and methods : See Appendix B.

NOTE. — Data for gold and foreign exchange reserves exclude in both groups the dependent overseas territories of western European countries, whose reserves are normally held by the metropolitan country and are not known in sufficient detail.

1955 continued in 1956, although at a slower rate, and a number of uncertainties were present at the end of the year regarding the immediate outlook. In any event, western Europe's exports to the United States can scarcely be expected to rise indefinitely at a rate as fast as that of the last two years.

The prospects for exports to the primary producing countries overseas appear moderately favourable as far as the overseas countries exporting mainly mineral products are concerned (see Chart 6). Foreign exchange reserves have slightly increased in those countries, and the purchasing power of their exports continues at a high level. The group of countries exporting mainly agricultural commodities look much less promising as export markets; but the recent decline in their foreign exchange reserves has been largely accounted for by the deterioration in the balance of payments of two countries, India and Argentina. The import restrictions recently introduced by India are expected to produce a saving of $63 million of foreign exchange in 1957, affecting mainly imports of consumers' goods. On the other hand, the fall in imports into Australia and New Zealand, brought about by the imposition of severe import restrictions, has produced a very marked improvement in the balance of payments of those two countries. This has already led to a relaxation of import restrictions in Australia as from 1 January 1957, which should affect, in particular, exports from the United Kingdom. The improvement in the payments position of Brazil suggests possibilities for increased exports to that country also. On the whole, then, it would appear that a moderate increase of exports to the overseas primary producing countries may occur. Should industrial expansion in western Europe continue to slow down in 1957, however, the export earnings of overseas countries would be affected, and some deterioration in European exports to them might then be expected—with the usual time lag which elapses between any worsening in the balances of payments of overseas countries and the tightening of import restrictions.

TABLE 14

Indicators of changes in the trade and payments position of western European countries in 1955 and 1956

Millions of dollars

Country	Terms of trade [a] *(1953=100)*		Trade balance [b]		Goods and services balance [c]			Surplus or deficit with EPU		Changes in gold and foreign exchange holdings of treasuries and central banks [d]	
	1955	1956	1955	1956	1955		1956	1955	1956	Dec. 1954 to Dec. 1955	Dec. 1955 to Dec. 1956
					First half	Second half	First half				
Austria	108	108	−189	−125	−60	−59	−11	−79	10	−55	46
Belgium-Luxembourg	101	104 *	−69	−98	133	154	217	152	213	100	50
Denmark	102	100 *	−130	−215	−6	32	−1	−42	−26	−10	−2
Finland	111	108	19	−111	−17	79	−78	..	..	8	−44 *
France	99	102	113[e]	−1 011	257[f]	340[f]	−146[f]	132	−654	466	−704[g]
Western Germany	98	99	309	698	368	333	551	361	1 000	440	1 215
Greece	..	..	−199	−293 *	−73	−42	−83	53	2	63	−9 *
Iceland	..	..	−25	−18 *	−9		..	−3	−4	−7	−4 *
Italy	99	100 *	−847	−1012	−221	−22	..	−196	−113	196	121 *
Netherlands	105	103 *	−519	−849	93	160	−54	65	−94	7	−212
Norway	107	112 *	−454	−441	−89	−54	−32	−46	16	28	13
Portugal	107	99 *	−116	−142	−24[h]		..	−44	−30	16	6 *
Spain	89	91 *	−189	−346 *	..	..	..	..	..	34	−52 *
Sweden	103	98	−259	−267	−100	27	−80	−22	31	−8	3
Switzerland	99	95	−182	−326	154		..	−68	−46	78	80
Turkey	111	..	−184	−102	−141		..	−41	−24	6	19
United Kingdom	97	100	−2 465	−1 627	48	−222	451	−231	−269	−642	−548[i]
Ireland	..	..	−261	−204	−135		...			−18	−8
Total of countries listed			−5 647	−6 489				−9	12	667[j]	470[j] Nov.

Sources : General Statistics, OEEC; *International Financial Statistics*, International Monetary Fund, and national statistics.

NOTE. — Figures with an asterisk refer to as many months as are available in 1956.

[a] The ratio of the export price index to the import price index.

[b] Exports f.o.b. minus imports c.i.f.

[c] Goods and services balance is taken from *International Financial Statistics* on the basis of IMF definition. Generally, figures for the half-year are provisional and in some cases not fully comparable with those for the full year. Published figures exist only for the year and for the first six months.

[d] Changes in gold and foreign exchange holdings refer to end-of-month periods.

[e] Data refer to 370 days for imports and to 375 days for exports.

[f] Data refer to the " franc area ".

[g] Not including the addition to reserves of $263 million of credit from the IMF, which according to official sources will probably be used at the beginning of 1957.

[h] Data refer to the " escudo area ".

[i] Not including the addition to reserves of $561 million of credit from the IMF; if these figures are taken into account, reserves show an increase over the year of $13 million.

[j] Figures refer to changes in gold and United States dollar holdings only (as reported by the United States). They cover the period up to the end of November 1956 only, and therefore do not reflect the substantial losses in December of some countries (e.g., France and the United Kingdom −84 and −392 million dollars respectively) if drawings on the IMF are excluded.

Changes in Balances of Payments

The rapid upswing in 1955 had brought only a small deterioration in western Europe's balance of trade with overseas countries and 1956 showed little further change in the over-all net result. Before the Suez crisis, foreign exchange reserves of western Europe as a whole increased but, if the large additions to west German exchange reserves are excluded from the total, the loss of reserves by other countries in 1956 exceeded their gains in 1955. As seen in Table 14 France, the Netherlands and Finland moved from a surplus to a deficit position between 1955 and 1956. In these three countries the loss of reserves was sufficiently large and protracted to give rise to concern. In Denmark, also, the precarious foreign exchange position continues to be a major preoccupation of the Government. The United Kingdom at first strengthened its payments position, though the Suez crisis caused a drain on reserves at the end of the year sufficient to wipe out all the earlier gains. The two positions of serious strain are now the French deficit, which caused a loss of reserves of more than $700 million during the year, and the west German surplus,[30] which raised foreign exchange reserves by $1.9 billion.[30a] A slowing down in the additions to western Germany's reserves will, however, result from the advance payments for United States armaments deliveries and arms orders in the United Kingdom and they will also be affected if the negotiations taking place at the moment for a transfer of between £60 million to £75 million for the later payment of the £7.5 million annual instalments on western Germany's post-war debts lead to an agreement. However, these payments will provide only temporary relief, and are not a solution of the country's chronic surplus position.

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[30] The figures in Table 14 may suggest that the United Kingdom should be included in this category but, in fact, the influence of the short-term factors in recent months has been so strong that the loss of reserves probably gives a greatly exaggerated impression of the underlying trend.

Developments in the dollar balance of western Europe have been rather favourable. During the first nine months of 1956, gold and dollar reserves of western European countries increased by about $900 million or by about as much as in the same period of 1955 (see table below). This increase occurred in spite of a sharp decline in United States non-military grants and loans to western Europe and an increase in the trade deficit. Only a small part of this deterioration was offset by an increase in U.S. military expenditure and by receipts on services account, and the more important change was a sharp rise in the outflow of United States private capital to western Europe, which more than trebled between the first nine months of 1955 and the same months of 1956. The upward trend in private capital movements started at about the end of 1955 and was stimulated by the high interest rates prevailing in most western European countries, and possibly also by the confidence created by the continued economic expansion in western Europe.

Balance of Payments of Western Europe with the United States in the first nine months of the years 1954, 1955 and 1956

(Millions of current dollars)

	Western European countries		
	1954	*1955*	*1956*
Exports to United States	+1 456	+1 695	+2 133
Imports from United States	−2 365	−3 112	−3 721
Trade balance	−909	−1 417	−1 588
Services (net)	+209	+182	+223
United States military expenditure abroad	+1 068	+1 238	+1 298
	+368	+3	−67
Private donations and capital movements	+223	+244	+775
United States Government grants and credits [a]	+573	+767	+496
Errors and omissions	+32	−108	−312
Change in gold and dollar reserves	+1 196	+906	+892

Source : Appendix Table I.

[a] Excluding military aid.

6. THE REINFORCEMENT OF DEFLATIONARY POLICIES

Economic policies in 1956 were determined by the concern of governments at the effects of excess demand on balances of payments and also of continued price and wage increases, considered both as a danger in themselves and, indirectly, also as a threat to balances of payments.

Increases in Prices and Wage Costs

Increases in the general price levels of western European countries are illustrated by the cost-of-living series shown in Table 15. Other price series—for example, wholesale prices—are too unsatisfactory in most countries and too seriously deficient in comparability to be a useful guide to general price trends; and, moreover, changes in the cost of living are particularly important to policy decisions because of their close connexion with wage demands.

As can be seen from the table, the increases in cost-of-living indices were fairly general and substantial in 1956, though much more so in the first than in the second half of the year. The countries least affected were western Germany, Ireland, Greece, Portugal and Switzerland, and in a number of other countries the rise was halted or even converted into a slight decline in the course of the year.

International price movements seem to have played only a minor role in the upward drift of prices in western Europe. The unit value of imports into western Europe, including imports from other European countries, has risen by only 2 per cent above its 1955 level and the slight rise in prices of raw materials imported from overseas has been offset by a drop in prices of imported foodstuffs.

The main cause of the price increases must therefore be sought in domestic factors. In the first place, industrial wage costs increased because, as can be seen from Table 16, productivity increases in industry generally lagged behind those of money wages, and higher wage costs in agriculture were in some countries passed on in the form of higher prices for foodstuffs. Secondly, though partly for the same reason, incomes rose and strengthened consumer demand for both industrial and agricultural products. But in many countries government policies themselves contributed to price increases. The fact that these increases were frequently concentrated in the first half of the year

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[30a] This figure differs from the one shown in the table as it includes also the foreign exchange holdings of banks outside the central banking system.

TABLE 15

Index numbers of the cost of living in western European countries

1953 = 100

Country	Food, drink and tobacco [a]			Industrial manufactures [b]			Housing			Fuel and light			TOTAL [c]		
	Dec. 1955	June 1956	Dec. 1956	Dec. 1955	June 1956	Dec. 1956	Dec. 1955	June 1956	Dec. 1956	Dec. 1955	June 1956	Dec. 1956	Dec. 1955	June 1956	Dec. 1956
Austria	108	107	111	100	103	103	100	102	102	95	97	99	107	107	110
Belgium	102	104	106	98	100	101	..	..	..	104	108	111	101 [d]	104 [d]	105 [d]
Denmark	114	113	115	108	110	113	114	114	121	118	128	129	112	113	116
Finland	95	106	117	87	88	93	141	157	166	98	107	109	98	107	115
France	100	100	100	101	101	103	127	135	140	99	93	95	102	102	103
Western Germany	104	105	105	99	100	101	108	109	110	109	109	112	104	105	106
Greece	119	122	121	125	126	126	154	154	154	130	127	135	125	126	126
Ireland	106	107	102	101	102	102	108	109	114	105	109	120	105	108	107
Italy	107	111	111	101	101	101	136	156	160	100	100	103	107	111	112
Netherlands	104	111	110	100	98	102	125	125	125	110	112	118	106	109	110
Norway	107	116	112	99	100	101	111	115	115	115	120	126	105	111	110
Portugal	104	104	108	99	96	98	116	115	116	103	103	103	104	103	106
Spain	108	113	117	106	107	109	103	103	103	..	..	..	107	111	114
Sweden	110	113	114	99	100	100	116	116	116	104	111	123	107	109	111
Switzerland	104	105	107	99	98	98	106	109	109	99	101	105	102	103	104
United Kingdom	111	113	113	104	105	106	108	113	115	120	121	127	110	112	113
Yugoslavia	123	133	129	90	90	90	131	136	136	122	120	123	114	120	119

Sources : National statistics.

NOTE. — For Portugal and Spain the indices given for December 1956 relate to November.

[a] In certain cases excluding drink and tobacco.

[b] For Finland, Greece, Ireland, Italy, Norway, Portugal, Switzerland and Yugoslavia the series refer to clothing only; for the other countries, clothing and household goods.

[c] Including other commodities and services in addition to those enumerated, but excluding taxes.

[d] Excluding rent.

can be explained, in part, by the temporary effects on some food prices of the severe winter of 1955/56, but mainly by the effects of measures to restrain consumption, through an abolition of subsidies or an increase of turnover taxes, which were introduced in a number of countries at the end of 1955 or early in 1956. In Finland, the expiry of price control in December 1955 resulted in the sharpest increase in the cost of living registered in any country. In Norway, price subsidies were reduced in April 1956, and in the United Kingdom, the purchase tax on consumer goods was increased in October 1955 and bread and milk subsidies were reduced in February 1956. On the other hand, the comparative stability of the price level in France, western Germany and the Netherlands can also be partly attributed to direct government action on prices.

In general, the rise in the price of services reported in a number of countries is due to an increase in wage-costs in non-industrial activities where productivity normally rises less than in industry; but government policies also have affected charges for rents, transport and fuel and light in a number of countries. Thus, in the United Kingdom rents rose gradually in the course of 1956, retail prices for coal and coke were raised in June following an increase in pithead prices of coal and transport charges for road passenger traffic were raised in May.

The Policy Measures

As a result of the various manifestations of inflationary pressures reflected in balance-of-payments positions and in rising levels of costs and prices, restrictive policies are now being applied in almost all the industrial countries of western Europe. Deflationary measures were introduced in the United Kingdom and in the Scandinavian countries as early as 1954 and the first half of 1955, and were reinforced in those countries in the course of 1956. All other western European industrial countries—with the exception of Italy and Switzerland—introduced restrictive measures of varying degrees of stringency and in varying combinations in the course of 1956. In Italy, idle capacities and an ample supply of manpower made it possible for expansion to continue without, in the Government's view, provoking undue inflationary tendencies. In Switzerland, where demand is pressing hard on domestic resources, a sharply rising volume of imports has helped to prevent prices from increasing and wages have also remained almost stable.[30b]

[30b] The only measure of credit restraint in force in Switzerland is the gentleman's agreement with the commercial banks and insurance companies concluded in June 1955 for the maintenance of minimum reserve deposits with the Swiss National Bank and a more restrictive credit policy. In view of an acute shortage of funds which developed by the end of 1956, the National Bank decided in December to release temporarily half of the balances of the banks' minimum reserve deposits.

TABLE 16

Output per man-hour and earnings in industry [a]

Percentage increase over corresponding period of previous year

Country	Year	Money hourly earnings	Output per man-hour
Austria	1955	4	3
	1956 [b]	5	2
Belgium	1955	2	8
	1956 [b]	13 [c]	4 [d]
Denmark	1955	5	2
	1956 [b]	6	2
Finland	1955	5	5
	1956 [b]	10	6
France	1955	8 [c]	8
	1956 [b]	9 [c]	7
Western Germany . .	1955	7	6
	1956 [b]	9	4
Italy	1955	4	8
	1956 [b]	6	7
Netherlands	1955	7	4
	1956 [b]	8 *	3 [d]
Norway	1955	5	—
	1956 [b]	7	5 [d]
Sweden	1955	7	4 [d]
	1956 [b]	8	2 [d]
United Kingdom . . .	1955	8	3
	1956 [b]	8 *	—

Sources: National statistics. For further details, see Appendix B.

[a] In general, average hourly earnings refer to manufacturing industry only. Output per man-hour refers to total industry, including mining and public utilities.

[b] Data refer to as many months as are available, generally 9–12 months.

[c] Wage rates in manufacturing industry.

[d] Output per worker.

A more satisfactory balance-of-payments position was the primary objective of policy measures adopted in Denmark, the United Kingdom and, to some extent, also in Sweden, where foreign exchange reserves continued to be inadequate. More recently, the deterioration in the balance-of-payments position of the Netherlands has given rise to serious concern and a government programme to deal with this new situation was published in February 1957. Deflationary policies were also adopted by western Germany and Belgium to check the increase in wage costs and in prices—regarded as dangers in themselves—although both countries have large balance-of-payments surpluses. In western Germany, the rate of over-all expansion has been quite exceptionally high, but the decision to adopt a restrictive course was based principally on the allegedly particular sensitivity of that country to inflationary phenomena.

It would appear that, at first, reliance was placed mainly on monetary and credit policies in most countries. The preference for using these instruments was due partly to the fact that they had been neglected for some time and partly to the belief that they worked almost automatically and with less interference with the free market forces of the economy than fiscal or administrative measures would have involved. Another consideration was the political difficulty of reversing the trend towards lower personal income taxes, which had started in the period of slack following the Korean boom.

Central Bank discount rates were raised in all countries which had embarked on a restrictive course, with the exception of France—in some instances several times—but since it had become common experience that variations in the cost of credit by themselves do not greatly influence investment decisions in industry during a period of continued upswing,[31] this measure was supplemented by a series of others aiming to reduce liquidity. Greater use was made of open market operations. Bank liquidity and therefore the possibility of making advances were further influenced by increases in minimum reserve requirements or liquidity ratios and by restrictions on re-discounting facilities. A more direct limitation of credit was the attempt to freeze bank advances at a given level, or the lowering of that level, in Austria, the Scandinavian countries and the United Kingdom.

Government loans issued on particularly attractive terms—with high yields in Denmark, Finland and Sweden, with tax exemption in Belgium, Finland and France and with an index-clause in Finland and France—served to force higher interest rates throughout the system. The trend of bank advances in selected countries can be seen from Table 17. In the United Kingdom and Sweden, restrictive policies were effective in reducing advances below the 1955 level and in some of the other countries shown, in slowing down the rate of increase. In both the United Kingdom and Sweden, moreover, the lending policy of commercial banks was operated in a highly selective way. Whereas total advances in the United Kingdom declined by some 3 per cent from November 1955 to November 1956, advances to the capital-goods sector rose considerably (by 20 to 27 per cent) and the credit freeze affected mainly the food industries, retail trade, hire-purchase and personal and professional

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[31] Though they did appear to have affected investment in stocks in some countries.

TABLE 17

Bank advances in selected countries

Millions of national currency units

Period	United Kingdom [a]	Sweden	Norway	Denmark	Western Germany	Finland
1954 March	1 854	10 463	7 740	5 465	42 006	110 816
June	1 894	10 742	7 986	5 751	43 612	117 220
September	1 934	10 940	8 110	5 766	46 267	121 744
December	1 957	11 092	8 165	5 824	50 170	128 955
1955 March	2 095	11 387	8 471	5 733	52 261	134 881
June	2 190	11 070	8 552	5 835	54 761	142 305
September	2 215	10 951	8 553	5 810	57 630	143 785
December	1 981	10 530	8 514	5 928	61 121	155 436
1956 March	1 961	10 643	8 751	5 886	63 455	159 981
June	1 985	10 861	8 870	6 092	65 726	163 175
September	2 002	10 825	8 867	6 111	67 207	161 927
December	1 931	..	..	..	..	..

Sources: **United Kingdom:** *Monthly Digest of Statistics* (advances by member banks of the British Bankers' Association); **Sweden:** *Quarterly Review of the Bank of Sweden* (commercial banks' advances); **Norway:** *Monthly Bulletins of the Bank of Norway* (joint stock banks and savings banks); **Denmark:** *Monthly Review of the Economic Situation in Denmark, The Danske Landmandsbank* (commercial banks' advances); **Western Germany:** *Monthly Report of the Bank Deutscher Länder* (advances to business and private customers by credit institutions outside the central banking system), **Finland:** *Monthly Bulletin of the Bank of Finland* (advances to the public by the commercial banks).

[a] Figures correspond to preceding month.

borrowers.[32] In Sweden, also, credit restrictions appear to have been concentrated on non-industrial borrowers. Advances to private industry in November 1956 were 2 per cent above their level of a year earlier, whereas advances to all other sectors remained more or less constant.[33]

In western Germany, the continuing influx of foreign exchange is adding to the banks' liquidity, and the upward trend in bank advances has been slowed down only very slightly. Industry seems to have been affected about evenly, with the exception of the iron and metal-working industries, which obtained much more credit than a year ago.

In Denmark and Norway, advances have begun to rise again, and the National Bank of Denmark has appealed to commercial banks to exercise more restraint, while in Norway commercial banks were instructed to reduce credits during the last months of the year by a stipulated amount.

In so far as measures in the monetary and credit field were not expected to have, or failed to have, any rapid or marked effect on the growth of investment, they were supplemented in some countries by measures promising more direct effects. Thus, the United Kingdom, Norway and Denmark exercised control over new capital issues; Sweden and Norway have, in addition, imposed a tax on industrial investment; Sweden raised company taxation early in 1955, and Norway restricted imports of capital goods. The Netherlands reduced facilities for accelerated depreciation towards the end of 1955 and the new government programme provides for an increase in company taxation and for the suspension of investment allowances. The United Kingdom had adopted similar measures, and France raised the tax on corporate profits in July 1956.

But since it was the professed objective in most countries to prevent the whole burden of adjustment from falling on industrial investment, so as not to prejudice long-term industrial expansion more than was strictly necessary, greater emphasis has more recently been laid on measures which aim at limiting consumption or at attacking price increases more directly.[34]

The demand for durable consumer goods, which in part competes directly with investment demand for engineering products, was curtailed through the tightening of hire-purchase regulations. Thus, in Austria banks were requested to restrict lending for hire-purchase finance. In Denmark minimum hire-purchase deposits had already been increased in 1954. In France, the ability of specialized institutions to extend instalment credit was restricted and the proportion of the value of any sale that should be thus financed was reduced from 80 to 70 per cent. Both in the Netherlands and in Sweden, down-payments were increased and the period of repayment shortened, and in the United Kingdom the similar restrictions introduced in 1955 were reinforced twice during 1956.

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[32] *The Bankers' Magazine*, January 1956 and 1957.

[33] *Ekonomisk Revy*, December 1956.

[34] Limitations placed on the construction of dwellings in some countries have already been referred to in Section 4.

Fiscal and administrative measures to reduce consumer purchasing power, and consisting in reductions of subsidies or increases in indirect taxation, were applied by the Scandinavian countries, the United Kingdom, and Finland; and they also form part of the Dutch Government's proposals. A specific defect of these measures is that, while curtailing real consumer demand, they are likely to affect the cost of living and thus to increase wage pressures. They may therefore have played a part in accelerating the vicious spiral, particularly in those countries where index-tied wages predominate.[35]

Other countries, particularly those where the balance-of-payments situation is comfortable or is not considered a major problem, have concentrated their efforts on checking price increases directly since they could afford the risk that released purchasing power would spill over on to imports. Both Belgium and western Germany reduced indirect taxes on items of mass consumption, and western Germany granted indirect subsidies to coal mines to compensate them for miners' wage increases and thus to prevent higher coal prices. France has combated the rise in the cost-of-living index for some time by tax reductions, suspensions of import duties and price blocking. In July a general price stop on home-produced industrial goods, trading margins and services was introduced to brake the upward price movement. In Finland, however, where the balance-of-payments situation is a matter of grave concern, the price stop for home market goods decreed in November 1956 was an emergency measure to limit new demands for wage increases in the hope of preventing a renewed price-wage spiral.

The Impact of Deflationary Policies

Now that restrictive policies have been in force for a sufficient period of time in some countries—though not in others—to have produced results, an attempt can be made to examine their impact from the point of view of the various objectives they were intended to achieve.

A fairly general conclusion that might be drawn is that they succeeded in reducing the pressure of overall demand and in checking price increases, but at the expense of greatly slowing down the rate of expansion or of bringing it to a halt, as in the United Kingdom, Sweden, and, until recently, Denmark. It is difficult, however, to attribute the success (or any partial failure) to any specific measures taken, since they were used in various combinations and their effects were interacting. Thus, it cannot definitely be said that monetary policy affected primarily investment, and fiscal policy consumption, since the secondary effects of a slower growth of consumer demand on expectations and investment decisions must also be taken into account, and since credit restraint also affected personal consumption through the reduction of personal loans and of hire-purchase credit.

Neither can any generalization be made as to the speed with which restrictive measures worked either directly or through their impact on expectations, since this varied a great deal from country to country. For example, in the United Kingdom, credit restraint affected orders on investment-goods industries fairly quickly, but the volume of industrial investment outlay began to slow down only at the end of 1956, about a year and a half after the instruments of the credit squeeze had been sharpened. In western Germany, on the other hand, the rate of investment growth began to slow down in the latter part of 1956, roughly six months after the reinforcement of a mildly restrictive credit policy. The explanation may be that, apart from what one might consider a fairly normal reaction to an exceptionally high level of investment over a long period in that country, business men's behaviour and expectations respond more promptly to government pressures and appeals, and to changes in the general economic climate, in western Germany than elsewhere. But in addition, profits had begun to decline as a result of the rise in wage-costs and, since self-finance had traditionally played an important role in investment financing, not only the reduced willingness to invest, but also the greater financial difficulties in carrying out projected schemes may have been a more important factor in determining the level of investment.

Whether policy measures were particularly effective in slowing down or arresting the growth of investment, or whether they began to have an impact only quite recently, the problem now arises of the conflict between the immediate objective of reducing inflationary pressures and the long-term goal of securing future expansion through the creation of new productive capacities and the improvement of the competitive position of exports. This dilemma is particularly acute for countries where the volume of industrial investment has been relatively low—as has been the case all along in the United Kingdom and Belgium—and where a high level of investment is essential for export expansion and for the structural changes required to achieve it, as in Austria and Denmark.

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[35] In Finland, the reduction in subsidies on some food items (sugar, coffee, butter, meat) in October 1956 was expected to raise the cost of living by about 5 per cent.

As to the success of some countries in achieving an improvement in the balance of payments, the question arises whether the result may not, in some cases, be more apparent than real. In those countries where the balance-of-payments disequilibrium is of a structural nature and not merely a by-product of excess domestic demand, the slowing down of activity below what it could otherwise have been, in order to relieve balance-of-payments strains, is an insufficient cure unless it is supported by other measures to facilitate structural adaptations of output to changes in world demand or to reduce costs of production and bring export prices more into line with those of competing countries. The Danish balance-of-payments problem is certainly of a structural nature, in view of the need to shift resources to industry for the purpose of increasing industrial exports. In Sweden, also, the view has recently been expressed [36] that the weak balance-of-payments position is not solely the consequence of a high level of demand, but that structural factors are partly responsible. It is thought that consumption and investment have shifted towards a pattern with a higher import content and that this would tend to raise imports irrespective of the level of domestic demand.

Where the purpose of restrictive policies was not merely to reduce the pressure of over-all demand on available resources but to produce a certain degree of slack so as to facilitate a shift of resources from domestic consumption to exports, the problem turned out to be much more difficult to solve, and disinflationary measures much slower to produce results than had been hoped. It would appear, both in Denmark and in the United Kingdom, that to produce a slack in some sectors was not enough, by itself, to ensure a more rapid expansion in others. It has already been pointed out that in the United Kingdom part of the manpower released from contracting industries—in particular, consumer durables—did not find its way to export industries but to distributive trades and transport. One reason may be that, apart from the time factor already referred to, workers released were not always of the right skills. The fact, however, that exports have risen in volume by 6 per cent, which is not more than the rate of expansion achieved in 1955, would also suggest that in some sectors demand in overseas markets may have been a limiting factor. Once again, the conclusion appears to be that, if export expansion is no longer limited by physical shortages, a prolonged continuation of restrictive policies affecting the level of investment, as they begin to do in the United Kingdom, might be costly in terms of potential output forgone, and insufficient by themselves to bring about a more marked increase in exports. The recent reduction of the discount rate in the United Kingdom from 5½ to 5 per cent does not necessarily indicate any loosening of effective restraints on investment which now exist, and official statements suggest that no substantial relaxation is in fact intended.

In countries such as western Germany and Belgium, where the balance of payments presents no problem and where price increases have been comparatively moderate, the need for the maintenance or reinforcement of restrictive measures affecting production has been even more questionable, particularly in view of the fact that they strengthen the tendency towards chronic balance-of-payments surpluses, add to the balance-of-payments strains of other countries, and hence prolong the need for deflationary policies elsewhere. In western Germany, a joint survey of six leading economic research institutes published in December 1956 stated that: "It is up to those responsible for credit policy to find the right moment for a possible departure from the present restrictive line. . . ." On 10 January the discount rate was reduced for the second time,[37] from 5 to 4½ per cent, because of the slowing down of the boom in the investment sector. It has, however, been officially stated that this measure is not to be considered as a signal for a reversal of monetary policy. In Belgium, an anti-inflationary programme put forward in October by the Government and envisaging far-reaching measures for wage and price stabilization has not been adopted, and may have been found unnecessary in view of the comparatively mild manifestations of inflationary pressure in that country.[38]

Wage Pressures and Government Policies

In many countries the outcome of present wage negotiations and the prospects of wage demands in 1957 are in the foreground of government preoccupations. The future development of government policies —the question whether the time has come in some countries to relax credit and other restrictions—thus hinges, apart from any immediate concern over what is considered to be a dangerous balance-of-payments position, on the question of wage demands and the chances of their being met.

In the course of 1956, the slowing down of the rate of expansion and the easing of over-all pressure of demand have had only little effect on wage movements. As has also been evident in previous years, money wages have, on the whole, not risen more rapidly in countries with full employment than in those with some slack or even mass unemployment.[39]

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[36] *Konjunkturläget hösten 1956.* Meddelanden från Konjunkturinstitutet.

[37] The lowering of the discount rate from 5½ to 5 per cent in September 1956 was mainly designed to check the influx of short-term funds.

[38] The draft legislation submitted to Parliament in January consists mainly of a profits tax of 5.5 per cent on profits exceeding 500,000 Belgian francs. The yield of this tax will not be sterilized, as originally intended, but will be used for social expenditure and for scientific research. It is estimated that only a small number of firms will be affected by this measure and that the total yield of the tax will be about 1.6 billion Belgian francs.

Only scattered information is available about current and prospective demands for wage increases. However, on the whole these demands do not seem to have become sufficiently restrained, even in countries where deflationary policies have been applied most vigorously, to relieve governments of their preoccupation with this problem. It is true that trade unions in Sweden have recognized that, in the present situation, there is less scope for wage increases; and according to an agreement between the workers' and employers' organizations, the increase will be limited to 2 per cent in 1957 and to 2½ per cent in 1958. In the United Kingdom, demands for wage increases at the beginning of 1957 seem to be about as numerous as early in 1956, but a tentative impression is that they are somewhat more modest and also that employers' resistance is stiffening. In Norway, most of the wage agreements concluded in 1956 were for a two-year period, but new wage demands can be made if the cost-of-living index in March or September 1957 reaches the level of 156. At present the index is at 150, and it remains to be seen whether the Government succeeds in stabilizing prices. While, therefore, there is a possibility that money wages in many countries may not rise quite as quickly in 1957 as they did in the two preceding years, the prospective increases are still considered as a factor making for instability.

Of the countries where the pressure on manpower resources continues unabated, an increase in wages of at least 5 per cent as compared with the average for 1956 has already taken place in France at the beginning of 1957, and an increase of about 9 per cent has been estimated as likely in the Netherlands in 1957.[40]

In Italy, a country with large idle manpower resources, the lull which characterized the labour market in 1956 seems to be coming to an end, in view of a series of demands for wage increases. In western Germany and in Belgium, no substantial wage claims appear to be outstanding after the very large wage increases obtained in 1956, and it is thought that the change in the over-all climate in western Germany will make employers more reluctant to grant any new wage demands. It is nevertheless considered that " an adaptation to the changed market situation by the parties in wage negotiations and by business in general when framing price policy would provide one of the most important pre-requisites for a change in the basic direction of business cycle policy ".[41] On the other hand, the movement for a shortening of the standard working week with full pay compensation has been particularly marked in both Belgium and western Germany. In western Germany this already affects such important sectors as coal mining and parts of the metal-using industries, and more agreements are to come into force in the early months of 1957. Even in the absence of further rapid wage increases, the shortening of the working week is a factor making for a rise in wage costs in 1957. Western Germany is, however, in the fortunate position of having a greater " international margin " than most countries for absorbing increases in its domestic wage and price levels.

If then, as seems likely, deflationary policies in themselves—short of creating mass unemployment—are not sufficient to produce wage restraint on the part of the trade unions, although they are likely to strengthen employers' resistance to wage demands, there is danger that governments will continue to maintain policies which prevent the resumption of expansion without thereby providing a solution to what they consider to be one of the key problems in the present situation.

Inflationary Pressure and Balance-of-Payments Problems in France

The relatively easy economic situation in France in 1955 changed in the course of 1956, and the related problems of price stability and balance-of-payments equilibrium took on an acute form. The priorities allocated to those problems and the manner in which they were tackled differed considerably, however, from those applied elsewhere.

At the beginning of 1956 the two major policy objectives were to find a way of restoring order in Algeria and to improve the welfare of workers and old people. The measures then adopted involved an increase of military expenditure, an extension of the legal paid holiday from two to three weeks, and a new old-age pension scheme. At the same time, it was part of the government programme that wages should continue to increase, that prices should be kept stable and that investment should be permitted to expand at the same rate as during the previous year. An expansion of production was hence required to provide sufficient resources to meet, without price adjustments, the increased demand that would result from such a policy. It was clear that this would also involve a rise in imports of raw materials and finished products, but the level of foreign exchange reserves was considered sufficient to ignore temporarily any balance-of-payments considerations.

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[39] See Chapter 5, on " Labour Market Problems in Western Europe ", in the *Economic Survey of Europe in 1955*.

[40] The forecast of developments in the Netherlands takes account of the expected wage settlements connected with the old-age pension scheme which came into effect on 1 January 1957 and the rent increase of 25 per cent for pre-war dwellings proposed for 1 July 1957. It should be noted that wage costs and wage incomes will probably rise by only some 3 per cent as the special wage bonus paid out during 1956 will not be repeated and as, on one hand, a special tax on the wage-bill has been abolished and, on the other, the premium for the old-age pension scheme will have to be paid.

[41] *Economic Conditions in the World and in Western Germany at the End of 1956*, joint analysis of the economic situation by six economic research institutes, 14 December 1956.

The situation turned out, however, to be more difficult than was expected, partly because the prolonged and severe frosts of February had serious effects on agricultural production. Even before the new decisions could make their impact felt, prices showed a definite tendency to rise. During the summer, the government had recourse to moderate deflationary measures to check the rise in consumption and to slow down somewhat the growth of investment. Among those measures, particular importance was attributed to a public loan launched by the Treasury on very advantageous terms to meet the cost of military operations in Algeria. The financial success of this loan exceeded the most optimistic hopes: the high subscription on the capital market absorbed some liquid funds and was assisted by important private capital transfers from overseas French territories. It did not, however, as was hoped, lead to an increase in the rate of savings.

To check the increase in prices, direct measures were also adopted: a general freezing of industrial prices, together with subsidies or the temporary abolition of taxes on some food items and services. Particular attention is given to the official cost-of-living index for Paris, which reached 146.8 (1949=100) at the beginning of 1956. According to the sliding-scale clause, the legal minimum wage rate is subject to renegotiation if the index reaches 149.1. Although the direct effect of this adjustment on disposable incomes would be limited, the government apparently fears that it would mean a generalization of demands for wage increases and the start of an inflationary price-wage spiral. But, unless something is done to reduce the pressure of demand, it will not be possible to manipulate the index indefinitely so as to keep it below the danger point. If this limit is exceeded, wage demands are likely to become all the more pressing the longer the adjustment is delayed.

In fact, and notwithstanding these efforts, prices went up notably in 1956. For consumption goods and services the increase over 1955 may be estimated at 4 per cent, so that the volume of private consumption in real terms rose by 5 per cent, while disposable incomes showed an advance of 8 per cent. But, as may be seen from the table below, this price adjustment would not have been sufficient to equate demand and supply, had imports not been much higher and exports somewhat lower in 1956 than in 1955. The result was a deficit of about 400 billion francs on the external balance on current account (of which 170 billion francs on the balance with foreign countries) and a drop in foreign exchange reserves by over $700 million in the course of the year to a level below that at the beginning of 1955.

Domestic Production and Expenditure in France

	1956	*Increase over 1955*	
	Billions of francs at 1955 prices		*Percentage*
Domestic production	15 650	650	4.3
Imports	2 030	300	17.2
Available resources	17 680	950	5.7
Private consumption	11 440	520	4.8
Public consumption:			
for civilian purposes [a]	190	30	18
for military purposes	800	200	34
Gross fixed capital formation	3 090	170	5.8
Increase in stocks	240	110	85
Domestic expenditure	15 760	1 030	7.0
Exports	1 920	−80	−4.2
Available resources	17 680	950	5.7

Sources: Official estimates.

[a] Consumption of goods and services; excluding wages and salaries of government employees.

While a part of the deterioration of the French balance of payments in 1955 is attributable to the effects of the exceptionally severe weather at the beginning of the year, the disequilibrium was mainly the result of more fundamental tendencies. Import requirements had increased with the economic expansion which occurred since the war, and exports needed to be stepped up at an ever-increasing rate. Hitherto this was mainly accomplished by increases in exports of food and raw materials, while less consideration was given to the need to increase the competitiveness of French manufactures on the international market and to stimulate the interest of French producers in expanding their foreign outlets.

It is clear that measures must soon be taken to stimulate exports and reduce imports either by eliminating disparities between internal and external prices or by manipulating import taxes and export subsidies so as to make them more effective in checking imports and promoting exports. But, as long as the French economy is producing near full capacity, these measures, and others which might be contemplated, are unlikely to provide a complete solution to the difficulties. The elimination of the payments deficit would soon be counteracted by new pressures on prices unless measures were taken, at the same time, to reduce domestic demand to a level more in accordance with domestic production. That the roots of the difficulties are to be found in the pull of the domestic market, marked by the rise in civilian and military expenditure, is reflected in the decline in practically all types of French exports in 1956, including those for which there was a keen demand on foreign markets. An effort is now being made to prevent public expenditure in 1957 from rising further. But this will not suffice to restore balance if private consumption keeps increasing at the same steady rate as during recent years. Given the present level of public expenditure, a slowing down of the expansion of disposable incomes seems to be the only way out of the present inflationary situation and a necessary condition for strengthening the external position.

The Special Case of Finland

The inflationary situation in Finland seems now to have reached particularly dangerous proportions. The difficulties started as early as the autumn of 1954, when the Government increased subsidies and reduced turnover taxes and effected a reduction in the cost-of-living index from 104 to 98 (October 1951=100). These steps were taken in the hope of avoiding wage increases which, according to the stabilization programme of 1951, would be due when the cost-of-living index had increased by 5 per cent. This attempt at stabilization, though checking the increase in cost of living for a time, failed to keep wages from sliding upwards. During 1955 wages of industrial workers rose by 5 per cent and those of all wage earners (including workers in agriculture and forestry as well as government and other employees) increased by almost 10 per cent on the average. During 1956 the underlying difficulties became more acute, for reasons discussed below, and money wages increased by a further 10 to 15 per cent while the cost-of-living index moved sharply upward to 118 in December, compared with 101 a year earlier.

Prior to these events, the Finnish economy had been making a gradual adjustment to world cost and price levels following the disturbances associated with the Korean war. The price boom for forestry products at that time had left Finnish costs seriously inflated because, unlike Norway and Sweden, Finland had not imposed an export levy until too late to shield the economy.[41a] Even after the price slump in 1951/52, world market prices for forestry products remained well above pre-Korean levels, and Finland's export position remained strong for the time being. It enjoyed, in fact, a substantial improvement in terms of trade compared with the 1930s which has materially assisted the impressive development of the economy since the war. The expansion has been largely concentrated on industries producing for the home market and also on the engineering industry, which had been developed during the war and was further expanded in the post-war years in order to meet commitments for reparations to the Soviet Union.

Thanks to stable price and wage trends in Finland during the years 1952 to 1954, price disparities between home-produced and imported goods tended to diminish. Since export earnings continued to grow at the same time, the first steps towards a liberalization of imports could be taken in 1955 through the introduction of automatic licensing for certain goods, including some manufactures.[42] All hopes of a realignment of the Finnish price and cost levels to the world market were, however, scattered through the sharp increase in costs in 1956, coincident with unfavourable developments in the export market for timber, resulting in a sharp decline in export prices and quantities.

The upsurge in wages and prices in 1956 followed a decision by Parliament to abolish, as from the beginning of the year, the control of prices and wages and the other special powers with which the Government had been endowed. This change in policy included a reduction of price subsidies, a relaxation of rent control and a limitation of the activity of the price equalization fund as well as a rejection of a proposal by the Agrarian party for linking agricultural prices to industrial earnings. Rents and certain prices immediately rose and the Government, deprived of its emergency powers, resigned. Wage negotiations started but were broken off by a general strike,[43] which could only be brought to an end through the intervention of the new Government. The truce granted the workers a 12 per cent increase in contractual wages, and industry received in compensation a cut in income and property taxes, higher depreciation allowances and a reduction in contributions to children's allowances. By these means, the cost effect of the wage increase may have been more or less neutralized, but only at the expense of enhancing their demand effect. A modified index clause in the wage contracts was reinstated, and limited price controls, as well as certain subsidies, were also restored. The Parliament finally accepted the agricultural price regulation system, which entered into operation in September.

It soon became clear that the agreement reached offered no permanent solution to Finland's economic problems, mainly because the burden on State finances proved too heavy, but also because of the deterioration in terms of trade during the year and the ensuing reduction of the foreign exchange reserves. In order to avoid a huge budgetary deficit the Government was forced to increase its revenue by raising alcohol prices, some import duties and rates for public services; in addition, a turnover tax of 25 per cent was reimposed on some textiles. This was followed by further price adjustments throughout the economy, and the cost-of-living index reached, as early as August, the point at which new wage negotiations could be demanded. In this situation the Government could only seek a respite by decreeing a temporary price freeze on home market goods; at the same time the budgetary situation had again to be relieved by the removal of part of the food subsidies and by the increase of some excise duties. Negotiations on a new stabilization programme have been going on since then, but so far without any announced result.

[41a] Even before the boom in prices for forestry products, however, Finland had experienced a sharp rise in wages, starting in the early part of 1950, sufficient to impair its competitive position.

[42] In order to avoid too rapid an increase in imports, recipients of automatic licences were requested to deposit 10 per cent of the value of licences with the Bank of Finland. In early 1956 the liberalized sector covered about 40 per cent of total imports.

[43] The loss of production incurred through the strike has officially been estimated at 2 per cent of the annual national product.

Even if further increases are avoided, the inflation which has already occurred in costs is seriously threatening the competitive position of all forestry industries. The difficulty is all the greater for the home market and potential export industries, which need to be expanded in the interest of diversification of Finnish production and trade but which, even under normal circumstances, are at a competitive disadvantage at exchange rates appropriate for the forestry industries. Any exchange rate adjustment which might be contemplated in the present situation would, however, be unlikely to bring lasting benefits unless the inflationary bias inherent in the existing system were eliminated. The ties now existing between wages and the cost of living, on the one hand, and between industrial and agricultural incomes on the other, impose particular and sometimes unbearable strains on a small and highly specialized economy exposed to sharp changes in its terms of trade.

7. THE IMPACT OF THE SUEZ CRISIS

Effects on Production

The international crisis that occurred in the Middle East at the end of October had direct effects on the economic situation in western Europe. The blocking of the Suez Canal and the wrecking of the pipelines linking the oil fields of Iraq to the Mediterranean disrupted the channels through which about one-third, in value, of western Europe's trade with the rest of the world normally goes. In view of the high rate of utilization of the world merchant fleet already prevailing during the summer, the lengthening of the sea routes was bound to have serious repercussions on European imports and exports.

Maintaining sufficient supplies of petroleum products proved the most complicated problem, as 75 per cent of the crude oil processed in western Europe had previously come through the canal or the now unusable pipelines. Petroleum could still be brought from the Persian Gulf round the Cape of Good Hope, and there was the possibility of substantially increasing imports from the American continent. Serious efforts were made to ensure maximum deliveries to Europe; but the limitation of production in the United States and the lack of sufficient tanker capacity resulted in a reduction of supplies by some 20 per cent as compared with the level they would normally have reached. Such a reduction was disquieting in view of the increasing part played by petroleum products in the European economy. Since the crisis started shortly before the onset of winter, when energy consumption is generally highest, the shortage of liquid fuel was liable to be a serious impediment to transport, to slow down industrial activity and ultimately to jeopardize economic expansion.

In actual fact, it now appears that production will not be greatly reduced, even in countries such as Italy or Sweden, which use petroleum products more than any other form of energy, or in France and the United Kingdom, which may have been most exposed to reductions in petroleum imports. The mild winter has made it easier to reduce fuel consumption; and in certain cases it has been found possible to substitute coal for fuel oil, and rail for road transport. Although some industrial undertakings had to curtail their activities, either for want of fuel oil or on account of transport difficulties, the situation was not serious enough to affect significantly the industrial production indices. Such figures as are now available do not show any marked departure from earlier trends. It is true that some concern is still felt about prospective supplies of fuel oil towards the end of the winter and in early spring. But the stocks still held by certain countries, the maintenance of the flow of imports so far and the measures already adopted by most fuel-oil consumers suggest that the danger of serious dislocation has receded. This danger would, of course, again become real if the Suez Canal should remain closed longer than now seems likely.

The petrol shortage has, however, indirectly caused a substantial drop in output in the automobile industry. Various restrictions were introduced in November in order to reduce petrol consumption by motor vehicles; and they are especially severe in France and the United Kingdom, where private car owners with no priority have a monthly ration enabling them

TABLE 18

Production, exports, imports and registrations of new passenger cars and commercial vehicles in western Europe

Six-monthly rates in thousands

Country	Passenger cars								Commercial vehicles							
	1954		1955			1956			1954		1955			1956		
	First half	Second half	First half	July–Oct.	Nov–Dec.	First half	July–Oct.	Nov.–Dec.	First half	Second half	First half	July–Oct.	Nov.–Dec.	First half	July–Oct.	Nov.–Dec.
France																
Production	220.0	217.1	284.4	248.7	305.7	339.8	300.5	325.2	72.2	80.8	88.9	76.7	96.0	92.5	82.1	95.1
Imports	3.2	4.5	5.6	2.9	7.5	6.0	4.4	3.6 [a]	0.3	0.3	0.3	0.3	0.9	0.6	0.8	0.6 [a]
Exports	56.5	45.2	67.4	57.0	82.2	78.8	67.5	83.1	17.0	13.7	15.9	11.9	18.0	13.8	10.1	13.2
Registrations	179.2	173.1	232.4	198.0	227.1	272.1	227.3	240.0	46.6	43.1	51.4	46.4	53.4	54.5	46.2	51.0
Western Germany																
Production	243.2	275.1	332.6	362.3	394.2	432.0	418.1	404.4	78.4	83.8	100.0	100.5	107.4	111.8	115.5	115.5
Imports	2.0	2.7	8.1	10.7	5.1	10.8	11.4	4.8 [a]	0.3	0.5	1.3	0.6	0.9	0.9	0.6	1.2 [a]
Exports	102.5	141.5	181.7	163.8	199.2	212.4	192.0	216.0 [a]	27.1	30.2	34.2	13.7	75.0	36.5	36.2	50.4 [a]
Registrations	146.0	137.3	182.3	196.2	192.6	242.1	218.3	192.6	28.0	28.5	29.5	35.4	35.4	38.0	33.9	32.4
Italy																
Production	87.6	93.1	101.9	132.0	123.0	149.3	138.2	115.2	16.7	19.5	20.1	18.6	18.3	19.1	17.6	16.8
Imports	0.8	1.3	1.6	1.4	1.5	1.9	2.1	. .	4.2	3.7	4.7	3.8	2.1	4.8	3.3	. .
Exports	16.6	20.4	27.0	38.1	26.4	40.9	36.3	. .	1.6	3.1	4.2	2.9	3.0	4.2	4.2	. .
Registrations	71.5	65.7	68.9	91.1	96.0	105.8	98.4 [b]	. .	17.0	15.8	17.8	16.4	13.8	16.6	15.3 [b]	. .
United Kingdom																
Production	379.5	389.7	460.7	413.3	483.9	412.9	282.9	318.3	127.7	141.0	167.5	164.1	187.8	178.0	114.3	128.1
Imports	2.2 *	2.3 *	5.2	6.2	5.7	3.1	3.3	5.1	0.3 *	0.4 *	0.5	0.5	0.6	0.4	0.5	0.6
Exports	187.9	177.9	200.5	179.3	160.8	169.6	153.2	135.9	65.6	60.7	77.8	81.5	76.2	83.1	64.1	59.1
Registrations	196.0	190.4	261.2	251.4	216.3	242.5	170.3	168.0 [a]	56.9	58.9	78.1	81.3	84.9	87.8	67.4	74.4 [a]
Registrations																
Sweden	59.2	67.2	63.9	67.2	57.0	66.2	71.3	64.2 [a]	6.7	8.2	6.5	6.3	7.5	5.8	6.8	.
Belgium	. .	. .	35.4	41.3	36.0	44.9	42.0	28.2 [a]	. .	. .	7.1	9.9	8.4	9.4	10.1	6.6 [a]
Switzerland	22.3	19.4	27.2	26.4	18.9	30.2	29.0	19.8 [a]	2.3	2.3	2.3	2.6	2.4	2.8	3.0	3.0 [a]
Austria	8.7	12.1	21.7	23.0	18.3	24.9	24.6	19.2	3.5	5.7	4.3	5.1	8.1	3.3	3.0	3.0
Denmark [c]	18.8	19.2	17.5	11.9	9.3	14.3	16.4	13.2	8.8	8.4	5.9	6.2	5.4	3.7	3.9	4.2
Ireland	10.7	10.2	13.2	11.7	8.1	10.7	4.8	. .	3.1	2.6	3.2	1.7 [d]	0.8 [e]	2.9	. .	. .
Finland	4.9	6.7	7.5	9.2	5.1	10.0	9.9	10.8 [a]	2.0	1.9	2.9	6.3	4.8	6.1	7.7	6.0 [a]
Norway [f]	6.8	10.7	9.0	6.6	4.5	6.8	8.6	6.6 [a]	4.2	3.7	3.6	3.2	2.4	4.0	3.6	4.2 [a]
Total of countries listed																
Production	930.3	975.0	1 179.6	1 156.3	1 306.8	1 334.0	1 139.7	1 163.1	295.0	325.1	376.5	359.9	409.5	401.4	329.5	355.5
Exports	363.5	385.0	476.6	438.2	468.6	501.7	449.0	. .	111.3	107.7	132.1	110.0	172.2	137.6	114.6	. .
Registrations	755.1 *	747.0 *	913.7	915.5	875.4	1 049.4	895.9	. .	185.1 *	187.1 *	203.1	211.4	219.5	227.2	. .	. .

Sources: National statistics. [a] November only. [b] July–August only. [c] Net imports. [d] July–September. [e] October–December. [f] Imports.

to travel only 200 to 300 kilometres. At least in these two countries, orders for new cars declined steeply at the beginning of the crisis, and most manufacturers had to slow down production.

In point of fact, the situation in this sector in October 1956 was already much less favourable in some countries than a year earlier. Table 18 shows that total registrations of new passenger cars in western Europe rose by 21 per cent between the first half of 1954 and the first half of 1955 and again by 15 per cent between the first half of 1955 and the first half of 1956. From July to October 1956, as compared with the same period of 1955, demand continued to grow in France, Germany and Italy, but declined in the United Kingdom and Ireland and seemed to be slackening in Austria and Belgium. While these trends were partly due to the stricter hire-purchase regulations introduced to check inflation, they may also have reflected a certain saturation of the market in some countries.[44]

It may be added that the present slow-down in the motor-car industry is not very serious at this stage, except in the United Kingdom, where it considerably preceded the recent events in the Middle East. The second-hand car market has not collapsed, as might have been feared. And the authorities have already taken certain steps to bolster up demand (relaxation of hire-purchase regulations, special petrol ration for new cars). Manufacturers are hoping that present difficulties will cease with the resumption of regular petrol supplies, although they are wondering whether this will occur early enough to make possible the usual spring increase in orders.

New Pressures on Prices

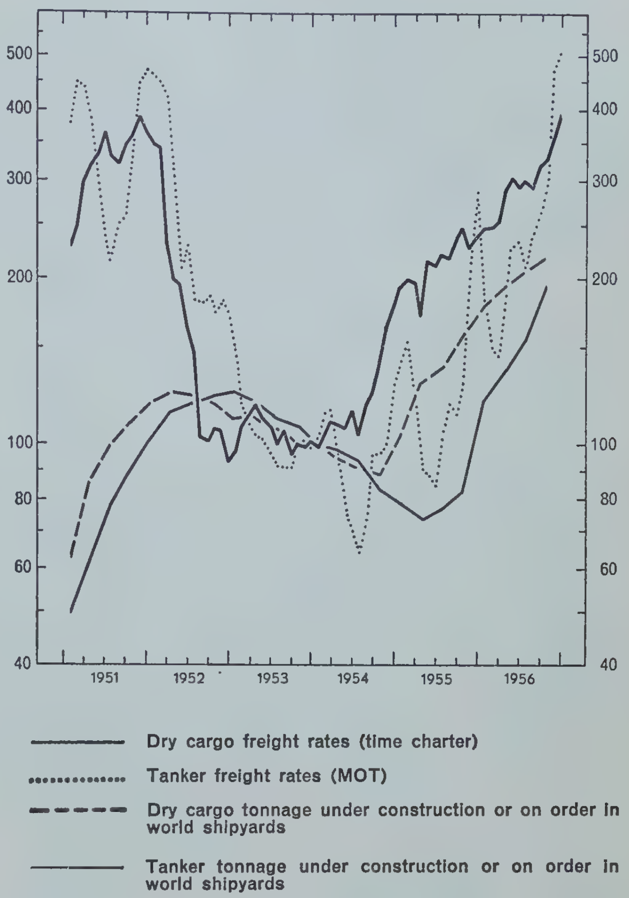
As was to be expected, the lengthening of sea routes caused a rise of freight rates in a market which was already very tight.[45] Chart 7 shows that the peak recorded during the Korean boom has been exceeded, and that rates are now almost twice as high as they were at this time last year. Ship-building is booming, but the effect of new deliveries on freight rates will be fairly gradual. The main alleviation to be hoped for in the short-run is the reopening of the Canal.

The rise in freight rates is reflected in a general tendency towards price increases, though there have been few spectacular changes in the prices of raw materials. In France, for instance, the wholesale price index for imported raw materials was 10 per cent higher at the end of January than at the end of October. The rise in prices of certain foodstuffs—in particular sugar and tea—was due mainly to the laying in of family stocks during the uncertain weeks of November. The general index of world prices shown in Chart 8 rose by some 4 per cent between the end of October and the end of January.

CHART 7

Freight rates and shipbuilding orders

Index numbers—end of 1953 = 100
Semi-logarithmic scale



Sources: *Norwegian Shipping News*, No. 1.A, Oslo, and *The Bulletin*, American Bureau of Shipping, New York.

Petroleum products are among those showing the steepest price increases, as might have been expected: higher freight rates and longer sea routes have increased transport costs; increased competition among purchasers has brought about higher prices in the producing countries; and American petroleum, which is dearer than that imported from the Middle East, now forms a larger part of total supplies. In some countries domestic prices have been increased still further, either as a deliberate means of checking consumption or as a result of increases in taxation to offset, at least in part, the drop in public revenue caused by reduced sales. Price indices, taking

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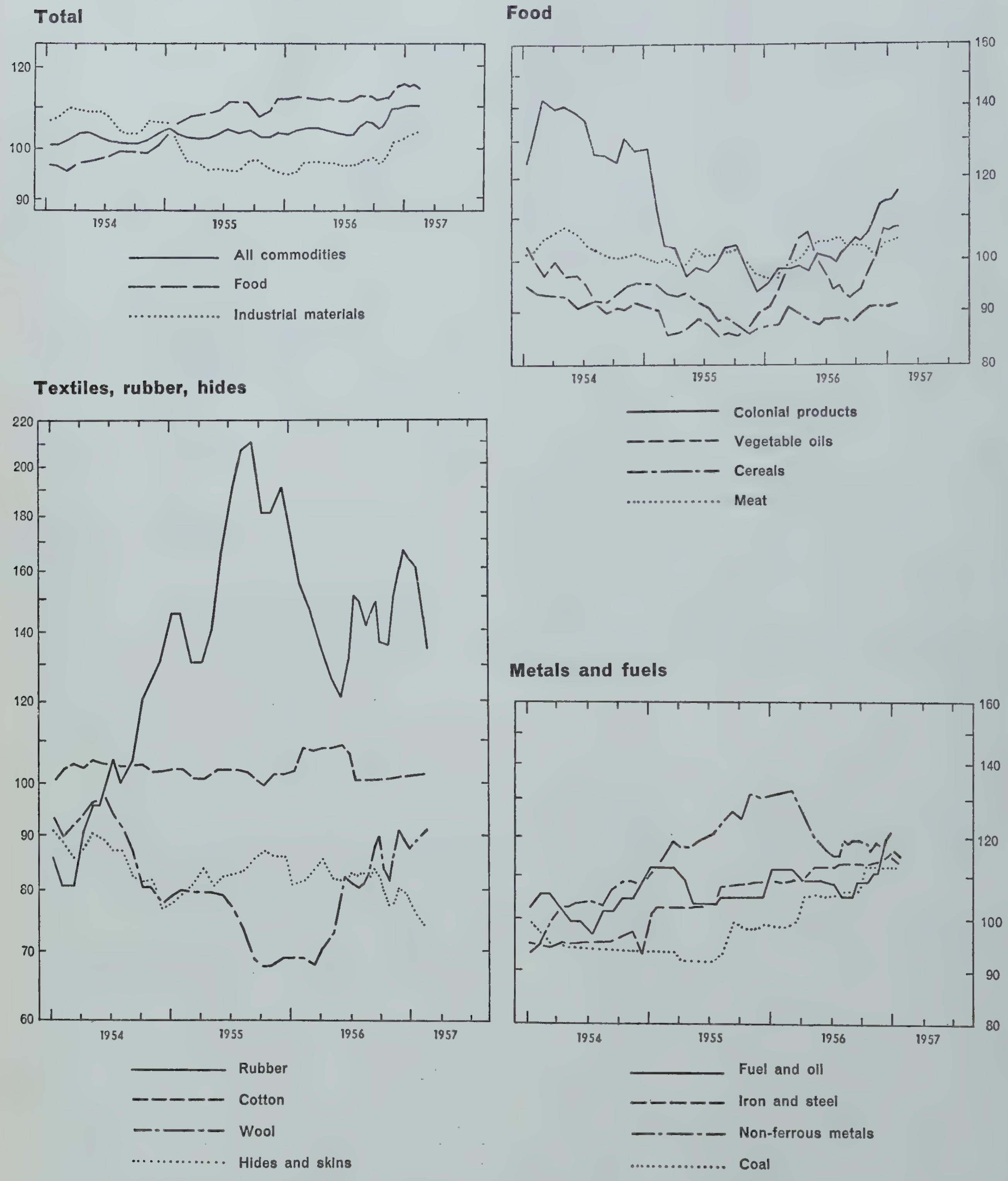
[44] See *Economic Bulletin for Europe*, Vol. 8, No. 2, pp. 8-12.

[45] See "The Current Shipping and Shipbuilding Boom", *Economic Bulletin for Europe*, Vol. 8, No. 2, pp. 13-14.

CHART 8

Commodity prices in selected world markets

Index numbers 1953-100 — Semi-logarithmic scale



Sources and methods : See Appendix B.

those at 1 November as 100, were as follows at 15 January :

	Petrol	*Gas-oil*	*Heavy fuel oil*
Belgium	103	116	133
Denmark	108	130	140
France [a]	113	108	107
Western Germany . .	105	110	128
Italy	111	100	100
Netherlands	123	114	136 [b]
Norway	102		112 [b]
Sweden	106		136 [b]
United Kingdom . .	134	132	135

[a] At 1 February 1957.
[b] At 1 January 1957.

These price rises must affect industrial costs; and the uneconomic substitution of one mode of transport or of one type of fuel for another must also have a similar effect. However, the resulting increases in the prices of finished goods in general should still be small in the absence of other inflationary pressures. Neither the cost of living nor the cost of investment should be raised by more than 1 or 2 per cent on account of the influences generated by the Suez crisis alone.

The Suez Crisis and Balances of Payments

Inadequate transport facilities are today compelling western Europe to reduce its purchases of petroleum products by some 20 per cent, as compared with normal requirements, for the first half of 1957; and imports of certain other raw materials may also be affected. Most of the rubber, jute and certain minerals used in western Europe previously came through the Suez Canal, and buyers who had adequate stocks are inclined to run them down and postpone replenishing until more normal freight conditions return. Shortage of shipping for the longer hauls now necessary may also tend to limit imports for a time. Hence the volume of imports into Europe is likely to decline somewhat; but the reduction will be partly offset later by purchases required to restore stock levels.

The rise in freight rates has caused an increase in the c.i.f. prices of products imported into Europe. But this does not have an unfavourable effect on the balance of payments of all countries, since most deliveries to Europe are carried in ships flying European flags. The profits now accruing to European ship-owners generally tend largely to offset the increased expenditure incurred by importers. The freight receipts and expenditure for the main countries, expressed in millions of United States dollars, showed the following balances in 1955:

Belgium-Luxembourg	−59
Denmark	+36
France	−119
Western Germany	−75
Italy	−14
Netherlands	+144
Norway	+336
Sweden	+198
United Kingdom [a]	+341

[a] Dry cargo only.

The net impact of the rise in freight rates on the balances of payments is therefore likely to be unfavourable for Belgium, France and Western Germany and favourable for the Netherlands, the United Kingdom and the Scandinavian countries.[46] In particular, freight earnings by Norway have already shown a rise of almost $100 million from 1955 to 1956, resulting from the increase in freights, and still higher earnings may be expected in 1957.

The lengthening of sea routes to the Indian Ocean is liable temporarily to affect Europe's trading position in that area, where it will give an advantage to competing countries such as Japan, Australia and the United States. The export commodities most affected are bound to be cement and fertilizers, as they are comparatively bulky products for which the freight charges represent a high proportion of the c.i.f. price at destination. Exports sent through the Suez Canal accounted for some 8 per cent of European production of fertilizers and for 3 per cent of that of cement. It can also be seen from Table 19 that exports from the United Kingdom are liable to be particularly affected, since one-third of the total—i.e., about 6 per cent of the United Kingdom national product—went through the Suez Canal in 1955. Exports of French

TABLE 19

Share of European trade passing through the Suez Canal in 1955

Percentage of total trade [a]

Country	Total trade		Excluding trade with western European countries	
	Imports	Exports	Imports	Exports
Belgium-Luxembourg	10	9	25	26
France	24	11	36	21
Western Germany .	13	12	27	35
Netherlands	9	11	23	32
Italy	20	13	37	29
United Kingdom . .	29	34	40	50
Western Europe .	17	16	32	35

Source : Direction of International Trade 1955 (Statistical Papers, Series T), Vol. 7, No. 6. See Appendix B.

[a] Expressed in dollars.

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[46] In the short run the picture may, however, be somewhat different, since tramp freight rates rose more than liner conference rates and Europe is a net importer of tramp shipping services.

and British products are likely to encounter greater difficulties in the Arab countries.

Lastly, the increased imports of American petroleum products may seriously worsen western Europe's trade balance with the dollar area. Admittedly, the substitution of American for Middle East petroleum does not mean a corresponding increase in dollar spending, since a high proportion of Middle East petroleum is already paid for in dollars; and the additional dollar outlay is difficult to assess accurately. In the case of the United Kingdom, it is estimated at some 25 million dollars a month. For Europe as a whole, it will probably not exceed 60 million dollars a month—i.e., some 15 per cent of the value of Europe's exports to the dollar area. The countries most seriously affected will obviously be those that used to obtain most of their petroleum from European companies operating in the Middle East—i.e., France, Italy and the United Kingdom.

Current events should on the whole favour the balance of foreign payments of the Scandinavian countries and the Netherlands, while aggravating the difficulties already faced by France and the United Kingdom; and the latter two countries have already had to endeavour to increase the means of payment at their disposal. The International Monetary Fund has authorized them to draw, at need, up to $1,300 million and $260 million respectively, and the United Kingdom has also obtained a loan from the United States Export-Import Bank ($500 million).

8. PROSPECTS FOR 1957

The direct effects of the political crisis in the Middle East may be briefly summarized as follows: a slight slowing-down of industrial expansion, a small increase in industrial costs, some restrictions on household consumption of liquid fuel, a slackening of motor-car purchases, and various shifts in balances of payments tending to weaken the position of countries already facing difficult problems and to worsen the dollar balance of western Europe as a whole. But the ultimate effects might have been more complex had consumers and producers reacted in ways which altered the underlying trends described earlier in this chapter.

The economic outlook has not, in fact, been substantially transformed. Pointers to this are, for example, the comparative stability of raw material prices, the continuance of earlier employment trends and the steadiness of second-hand car prices. Except in the United Kingdom, where the pressure on the pound sterling caused anxiety for a few weeks, the predominant view has been that the present crisis is of a transitory nature, entailing no necessity for fundamental changes in policies. While some important decisions by business enterprises may have been postponed until less uncertain political conditions are restored, there would appear on the whole to have been no change in earlier plans. Thus, the indirect repercussions of the crisis remain limited.

As most undertakings have been able to continue working at the usual rate, trends in private incomes are comparatively unchanged, and household demand is likely to be little affected. The large purchases of foodstuffs in November caused no appreciable rise in prices, as stocks were adequate; but the after-effects, in the form of reduced demand to compensate for earlier excess buying, are now appearing. The decline in purchases of new cars and forced reductions in expenditure due to difficulties in obtaining fuel oil or petrol mainly concern the well-to-do classes of the population, so that part of the purchasing power thus freed is likely to be saved. Hence, on the whole, there is little increase in pressure on markets for other products.

Little up-to-date information is available concerning investment intentions of industrial firms, but no changes seem to have occurred sufficient to alter the impression derived from the indications of investment prospects given in Section 3. Even in the automobile industry, investments affecting manufacturing programmes for the next two or three years have generally not been reviewed. Nor do firms seem to have been obliged to make important changes in their installations to meet the shortage of petroleum products.

Taking a more long-term view, certain investments may well be encouraged by the fact that the present crisis has focused public attention in Europe on the problems raised by dependence on petroleum imports. Many countries now find that they must take steps to safeguard themselves more effectively against political hazards. Existing projects concern more intensive prospection for oil in Europe or its dependent territories, the expansion of atomic energy production, increased oil storage capacity and increased tanker tonnage. These plans have already had certain effects, one being that demand for steel products—and in particular for steel plates—has further increased at a time when reduced activity in the automobile industry might have caused it to slacken somewhat.

During 1956 two main trends emerged in most countries: a slowing-down of expansion and, in the earlier part of the year, a sharper rise in prices than in 1955. Events in the Middle East may reinforce the first tendency but at the same time reverse the trend towards price stabilization which had resulted from deflationary policies in a number of countries. This may sharpen the dilemma in which most western

European countries now find themselves—namely, the choice between a continued expansion of their economies together with the acceptance of some price increases and possibly a weakening of their balances of payments, on the one hand, or a curbing of domestic demand which will check price increases, but at the cost of some slowing-down of expansion, on the other.

Although the present difficulties are experienced by all European countries, their importance varies considerably from one country to another. The gains which the Scandinavian countries and the Netherlands will obtain in their external transactions will represent a positive advantage that might outweigh such disadvantages as result from higher import prices. Western Germany seems to be the least affected of all countries, and its position contrasts with that of France and the United Kingdom, where the impact of recent events has been strongest.

The difficulties experienced by France in checking inflation and balancing its external accounts have been considered earlier in this chapter. They can only be aggravated as a result of the Suez crisis. The United Kingdom, on the other hand, made every effort in 1956 to improve its balance of payments; but it proved a costly operation, inasmuch as expansion was stopped and some localized signs of recession appeared. The present crisis is aggravating the situation on both fronts. The balance of payments has again deteriorated, and past efforts, which, as already pointed out in section 6, have yielded only modest results, have become the more inadequate in the present situation. The cuts in defence expenditure and other measures to restrain public expenditure now contemplated are likely to make more resources available for investment and export: equally, they will tend further to damp down the rate of over-all expansion unless the transfer of resources from declining sectors to those of strong demand can be stimulated.

In fact, the final impact and duration of the crisis being still somewhat uncertain, governments are tending to delay policy changes which the situation might otherwise have warranted. The cautious attitude generally adopted prevents them from relaxing deflationary measures even where inflationary pressures seem to be easing. Thus, in some countries production may for a time lag behind a level which it would otherwise have been possible to achieve.

Chapter IV

PLANS FOR FREER TRADE IN WESTERN EUROPE

Among the significant developments of the past year has been the swift growth of general interest in, and government activity in preparing for, the establishment of a western European Common Market and the start of discussions on the possibility of also establishing a wider Free Trade Area.

The publication in April 1956 of the expert report [1] called for by the Foreign Ministers of the countries of the European Coal and Steel Community at their meeting in Messina in June 1955 was soon followed by the start of negotiations on the drafting of a treaty among these six countries.[2] In July 1956 the Council of the Organization for European Economic Co-operation decided to establish a special Working Party to study possible forms of association between the " Common Market " of the six countries—which intend to form a customs union with a common tariff against the outside world and no tariffs on inter-member trade—and other members of the Organization. In particular, the possibility was to be examined of establishing a " Free Trade Area " including the customs union of the six countries together with other individual members of the OEEC which would maintain their separate tariffs against the outside world but abolish tariffs on trade with other members of the Area. As now contemplated, the Common Market would thus be a kind of inner core—a more closely integrated central group—of the larger Free Trade Area.

At the time of writing, negotiations on the draft treaty among " the six " have recently been completed and it is expected that the treaty may be signed within the next few weeks and presented to parliaments for ratification very shortly thereafter. The OEEC Working Party has reported that a Free Trade Area would be technically feasible,[3] most of the members of the Organization have indicated their interest in the project provided that satisfactory terms of association can be agreed, and further work on a number of specific problems has been set in train.[4]

The ideas behind the proposal of the six countries are not new. What is new is the careful and detailed consideration which has gone into their development since the middle of 1955, the enthusiasm with which preparations for giving them practical effect have been pressed forward by the countries mainly concerned and the change in the attitude of the United Kingdom. The new willingness of the United Kingdom to consider forms of international economic co-operation which have in the past been wholly unacceptable has clearly been instrumental in changing fundamentally the attitude of other western European countries towards the future course of economic co-operation in that region; but the determination displayed by " the six " in pressing on with their plans without waiting for other adherents has probably been even more important.

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[1] Comité intergouvernemental créé par la Conférence de Messine, *Rapport des chefs de délégation aux Ministres des affaires étrangères*, Brussels, 21 April 1956.

[2] Belgium, Luxembourg, the Netherlands, France, Italy, western Germany.

[3] One of the technical problems of a Free Trade Area is to ensure that goods originating outside the Area, and imported into one member country via the territory of another, pay the appropriate rate of duty. The Working Party reports that difficulties of this kind are capable of satisfactory solution. (See *Report on the Possibility of creating a Free Trade Area in Europe*, OEEC, Paris, January 1957).

[4] See OEEC Press Release A (57) 7.

1. Post-war Developments in Economic Co-operation

Throughout the post-war years two contrasting, but at times interweaving, strands have been apparent in the development of the international economic policies of western European countries. One strand has been the attempt to reduce barriers to international trade and payments on a world-wide basis. The second has been the idea of a closer " integration " of the economies of western Europe.

In pursuit of the first aim most of these countries have joined the International Monetary Fund and have adhered to the General Agreement on Tariffs and Trade. Moreover, the generally accepted view that both humanitarian principles and the maintenance of a prosperous and stable world trading system demand a more rapid economic development of the poorer countries of the world has received at least limited expression in such efforts as those carried out through the International Bank for Reconstruction and Development, the Colombo Plan and the technical assistance and other similar activities of the United Nations.

At the same time the western European countries have pursued policies of closer economic co-operation among themselves, centred mainly on the OEEC. At the start of the European Recovery Programme in 1947, the European member countries were urged by the United States Government to make the " integration " of the western European economies into a single market one of their major aims, and within western Europe the idea found considerable support in some countries. However, the Customs Union Study Group[5] established in Brussels in 1947 found itself constrained by lack of support from member governments to abandon within two years its studies of the feasibility and economic implications of a European customs union and to concentrate on technical questions, such as the development of a standard tariff nomenclature. Within the OEEC, attempts to co-ordinate recovery programmes, and attempts by the Technical Committees of the Organization to find means for a sector-by-sector approach to integration of the economies of member countries, were soon eclipsed in importance by the programme of liberalization of intra-European trade and payments and the establishment of the European Payments Union.

The immediate effects of the liberalization programme and the EPU credits and payments mechanism were to increase the degree of discrimination by member countries against imports from the outside world and especially against imports from the dollar area. This was reasonable in the conditions of structural balance-of-payments difficulties in many member countries in the early years, and in the face of the world dollar shortage which persisted for a longer period. The immediate object was to remove such hindrances to the growth of European production, and to its development in an economic pattern, as could be removed in these conditions. The ultimate aim was still apparently the integration of the economies of western Europe into a world economy functioning according to the GATT and IMF rules. This aim has in fact been pursued: as the world dollar shortage eased and the member countries succeeded in restoring a reasonable equilibrium to their over-all balances of payments, the credit element in EPU settlements was reduced—and the incentive to discriminate thereby also reduced—while the liberalization of dollar imports was steadily extended. At the present time, all the OEEC member countries except Turkey and Iceland have liberalized 80 per cent or more of their trade with other members, and most of them more than 90 per cent.[6] Liberalization of dollar trade has proceeded fairly rapidly during the last two years, and about 60 per cent of imports from the United States and Canada into the OEEC member countries as a group are now free from quantitative restrictions.[7]

At the same time, restrictions on current invisible transactions among western European countries have been progressively reduced. Little progress has, however, been made in unifying capital markets, apart from the relaxation of controls by some countries over international capital movements, and barriers to the international movement of labour are still strong.

Until very recently, attempts at a closer integration of the economies of western European countries than can be achieved by these means, and by the kind of occasional consultation on general economic policies to which they inevitably give rise, have been pursued mainly outside the OEEC. Most of them have had a political as well as an economic inspiration. The creation of the Benelux Economic Union—decided upon even before the end of the war—has proceeded fairly steadily, and discussions on the possible formation of a Scandinavian customs union have continued intermittently since 1948. The first experiment in a sector approach to economic integration was the establishment of the European Coal and Steel Community, and the opening of a common market for these products among the six member countries in 1953.

Other suggestions for moving nearer to a single market in western Europe have met with little success. The proposals of the Netherlands Foreign Minister (Dr. Stikker) in June 1950 for integration of the European economies would have involved the abolition, industry by industry, of quotas and tariffs on inter-member trade; the development of other rules to ensure " fair " competition between countries, and the setting up of a special fund to help finance modernization of industries, investment in new industrial development needed to provide employment for displaced workers and the cost of retraining schemes. These proposals received little support at the time in the OEEC, and neither did the alternative suggestions of the Italian Foreign Minister (Signor Pella) that the removal of quotas should be accompanied by reductions in tariffs on intra-member trade and the elaboration of rules on state trading, dual pricing, etc. Discussions on the " Green Pool " proposals for joint marketing schemes for agricultural products continued from 1951 to 1954 with little result. Other plans have also been put forward, without result, in the Council of Europe and elsewhere. One of these proposed tariff reductions within the GATT framework on items of particular importance in western European trade (The Low Tariff Club), another the formation of a new preferential system comprising the western European countries and their associated monetary areas, with provision for mutual assistance in financing economic development and for support of primary production by means of long-term contracts (the Strasbourg Plan). A plan for tariff reduction, designed specifically to reduce disparities in tariff levels, was also elaborated under the auspices of the GATT itself.

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[5] Succeeded in 1953 by the Customs Co-operation Council.

[6] The current obligation resting on OEEC members is liberalization of 90 per cent of total trade and 75 per cent at least in each of the three major categories. This decision is subject to a right to plead balance-of-payments difficulties, or other considerations of national importance or equity, as reasons for falling short of these percentages.

[7] These percentages tend to under-state the importance of the potential trade still subject to quantitative regulation, because of the methods of calculation. For intra-OEEC trade they represent free imports as a percentage of total private imports (generally based on 1948 values of trade). The percentage for dollar trade is based on 1953 values.

These proposals have reflected the wish of some governments, and of groups of people in most countries, for a form of economic and political integration of western Europe which goes beyond the removal of quota restrictions on trade, the freeing of payments, consultation on general economic policies and "fringe" activities such as joint research into factors affecting productivity. They have also reflected very specific disappointments at the results of the OEEC trade liberalization campaign and of successive tariff negotiations under the GATT. The low-tariff countries of Benelux, Scandinavia and Switzerland have long considered that high tariffs elsewhere prevent their benefiting as much from abolition of quotas in other countries as those countries do from removal of quotas on imports into the low-tariff markets. Moreover, some of the main exporters of agricultural products have been dissatisfied with the relatively slow progress made in removing quotas on imports of these goods as compared with the generally much greater reduction of barriers to trade in industrial products.

So far, the satisfaction of the first of these complaints has been made impossible by the reluctance of other western European countries to make concessions for which the low tariff countries could give little in return, particularly since such concessions would have involved either discriminatory tariff reductions of a kind which would offend against the GATT, or non-discriminatory reductions with no *quid pro quo* from the non-European beneficiaries. The OEEC Working Party on the Common Market points to one result of this situation: " During 1956... it became clear that liberalization in its present form had practically reached the limit of its possibilities. In particular, countries with moderate tariffs consider that they cannot proceed further with the abolition of quotas until a start has been made on the problem of tariff disparities." [8] The OEEC Council therefore undertook to consider further an alternative plan for non-discriminatory reductions of tariffs on goods mainly traded among OEEC member countries unless it appeared by early 1957 that " substantial progress " on the Free Trade Area project could be made by the end of that year.[9]

The fact that one of the major activities of OEEC had thus come to a full stop unless a radical new line of action could be devised, and the dwindling of expectations raised earlier that full convertibility of sterling and some other currencies could be the next new move, have undoubtedly been important factors winning serious consideration from other countries for the plans of " the six ". Failure of the United States Government to secure positive support at home for the proposed Organization for Trade Co-operation, and the very moderate scope under present conditions for further lowering of barriers to imports into the United States, have likewise reinforced the belief—ever present in many quarters—that only as a single large economic unit can western Europe meet on equal terms the dynamic economic power of the United States and the Soviet Union. Political developments in eastern Europe and the Middle East have also tended recently to reinforce already existing desires for closer western European unity.

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[8] OEEC Working Party Report, *op. cit.*, p. 7.

[9] See OEEC Press Release A (56) 33.

2. THE RULES OF THE COMMON MARKET AND OF THE FREE TRADE AREA

At the time of writing, the exact terms of the Treaty among " the six " have not been published. However, it is clear from statements made by members of the Governments concerned, and from other press reports, that the general principles of the experts' report of April 1956 have formed the basis for the Treaty though there have been considerable changes of detail—some of them significant. The report of the OEEC Working Party on the Free Trade Area indicates the results of preliminary exchanges of views on some questions of major importance; but it seems likely that negotiations on the formation of the Area will continue for some time after the Common Market Treaty is signed.

The outline of the two sets of proposals which follows is of necessity based on information gleaned from the sources just mentioned. It may be inaccurate in some details, and is intended to be no more comprehensive than is necessary to indicate the assumptions forming the basis for the later discussion of some of the issues involved.

The abolition of tariffs and quantitative restrictions on trade among the six member countries of the Common Market will take place over a minimum of 12 years, which may be extended to 15 years—and possibly even to 17 years by postponement of the final stage of transition. A timetable fixed in advance will provide for reductions of 10 per cent in each rate of duty on inter-member trade in the first year, and for a 10 per cent reduction in the average incidence of the tariff—together with at least a 5 per cent cut in each individual duty—in each of the two subsequent periods of 18 months. Similar provisions will govern the elimination of the remaining duties over two further stages together covering eight years; but the second stage of tariff adjustment will require a unanimous vote to bring it into operation immediately and may be postponed for one or two years; any further postponements will require a majority vote. Quantitative restrictions on imports and exports between the six countries will similarly be abolished over the same transition period; import quotas will be made non-discriminatory as between the member countries and will be gradually increased until they become ineffective.

The OEEC Working Party has recommended that the system and time-table for the elimination of tariffs and quotas on trade between members of the Free Trade Area should be the same as those adopted by the Common Market.[10]

The common tariff of " the six " against imports from all non-members of the Common Market will be established over 12 to 15 years according to a fixed timetable of regular percentage reductions of disparities between existing rates of duty and the rates in the common tariff. The methods to be used in determining the common tariff are not yet known with any certainty. Reports suggest that it may be formed by taking arithmetic averages of the six existing *ad valorem* rates on each item, subject to the substitution of arbitrary maxima for the highest rates within each of the main sectors—raw materials, semi-manufactures and manufactures—and possibly also of an arbitrary minimum rate for manufactures. Rates on a small range of goods may be fixed by methods other than the formula.

Agriculture. Reports suggest that, while tariffs and quotas on inter-member trade in agricultural products may be abolished in the six countries of the Common Market by the end of the transition period, arrangements will be made to replace the present national policies for supporting agricultural incomes by a " common " policy intended to have similar effects. Common marketing schemes for the main products have been suggested, involving minimum price arrangements and long-term contracts—both of which would presumably have to be supported by a control of imports into the area tighter than that provided by a tariff. It has been suggested that, in the less distant future, the existing quotas and tariffs on inter-member trade may be gradually replaced—at least for some products—by a system of national minimum prices supported as necessary by controls on imports from other members as well as on those from the outside world.

The OEEC Working Party on the Free Trade Area reports that most of its members " consider that the free trade area should comprise all the categories of goods which the OEEC countries produce and trade between themselves though they admit that trade in agricultural products might be governed by a special system."[12] The United Kingdom Government has, however, made clear its intention to consider joining the Free Trade Area only if imports into the United Kingdom of " foodstuffs, whether for man or beast, whether in the raw, a manufactured or a processed state ", together with drink and tobacco, are exempt from the rules.[13]

Greater freedom of movement for labour and capital within the Common Market is to be provided for, though it seems doubtful whether complete freedom of migration is contemplated in the near future. Countries will also, presumably, retain the right to apply to foreign borrowers at least any controls applied to the domestic capital market.

Liberalization of trade in services is likewise to be pursued, with particular stress on the elimination of discrimination among member countries. In the transport field, discrimination based on the origin of the goods carried is to be abolished within the Common Market and other types of discrimination may be subject to supervision.

Rules of competition. Certain policy measures which directly frustrate the effects of removing tariffs and quota restrictions (e.g., export subsidies or discriminatory turnover taxes) will be prohibited in the Common Market, and others which may have this effect (e.g., production subsidies) will be subject to some degree of supervision. How restrictive practices in the private sector will be dealt with is not yet clear. The general intention appears to be to lay down a minimum of specific prohibitions in advance, but to state general principles and to leave a body of " case law " to grow up gradually as a result of adjudication by the institutions of the Market on questions brought to them for decision. The OEEC Working Party suggests a similar course of action for the Free Trade Area.

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[10] Reports suggest that the rules of both associations may allow each member to maintain some protective restrictions on inter-member trade in a very restricted list of goods produced by industries which are regarded as " strategic " or essential to maintain for some other reason, and which could not survive without such protection.

[12] OEEC Working Party report, *op. cit.*, page 20.

[13] Statement by the Chancellor of the Exchequer of the United Kingdom, *House of Commons Official Report*, 26 November 1956, Col. 41.

Harmonization of general economic and social policies. Continuous consultation on the general trends of economic and social policies is provided for in the Common Market, and the six countries seem to be especially concerned to harmonize fairly quickly their policies and practices relating to equal pay for men and women, the length of the standard working week and paid holidays. The Government of the Federal Republic of Germany has apparently undertaken to attempt to introduce practices in these fields similar to those already existing in France. Any government which is dissatisfied with the progress in " harmonization " made during the first four-year period of the transition can have the introduction of the second stage of tariff reduction postponed for up to two years.

The general intention seems, in other respects, to be to keep interference with the details of internal policies—at least in the beginning—to the minimum necessary to ensure that the removal of tariffs and quotas on inter-member trade is not offset by other measures having similar effect. For example, despite the general rules on tariffs, countries will retain freedom of action in respect of revenue duties, subject to safeguards to ensure that these do not have—either directly or indirectly—any protective effect.

The OEEC Working Party recommends a similar freedom for members of the Free Trade Area. So far as wider issues are concerned, it suggests that the present procedures of the OEEC regarding " economic and financial co-operation, the liberalization of invisible transactions, capital movements, manpower, etc." will have to be re-examined to see if they are adequate for the needs of a Free Trade Area.

Provisions for dealing with balance-of-payments difficulties and with difficulties resulting from serious damage to particular industries within the Common Market will apparently permit reimposition of quota restrictions on imports from another member country in either of these cases, but subject to safeguards. It is not clear whether action in the field of tariffs is also contemplated. The OEEC Working Party has suggested that in the Free Trade Area resort to escape clauses to protect particular industries should be very strictly controlled: the imposition of quantitative restrictions without prior approval should be permitted in order to deal with balance-of-payments difficulties, though the need for restrictions should be subject to review at frequent intervals by the appropriate institutions of the Area.

The French import taxes and export subsidies are the subject of a special provision. France may maintain the present system of special import taxes and of remission of fiscal charges on goods exported, subject to regular examination of the necessity for these measures by the appropriate organs of the Common Market, until the balance-of-payments situation becomes satisfactory. However, they are supposed to be abolished by the end of the transition period. The French representative in the OEEC Working Party emphasized that the right to retain these measures was " a fundamental condition for the participation of France in any form of common market ".[14]

The institutions of the Common Market. A European Commission composed of members independent of, though appointed by, governments will be the main executive organ. It will have powers of decision on such matters as requests to invoke escape clauses, powers to require a country to abandon an internal tax which distorts competition, etc., and powers to suggest action to the Council of Ministers. Appeal to the Council of Ministers against the Commission's decisions will be possible and the Council will, in general, take its decisions by majority vote—though a qualified majority, and based on weighted voting. There will also be a Court of Justice and an Assembly. A Committee on Monetary Policy, composed of government representatives, will provide for continuous consultation and exchange of information on general economic trends and policies. A Readaptation Fund will provide financial assistance for retraining schemes for labour becoming unemployed as a result of transitional adjustments of the industrial structure. A European Investment Bank with a subscribed capital of $1,000 million, and with power to raise loans in the capital markets of member countries, will assist in financing economic development in the under-developed regions of the Market, readaptation of industry generally and investment projects of common interest.

The dependent overseas territories of member countries are to be associated with the Common Market. By the end of the transition period their products will enter the continental countries free of import duty while the latter countries will apply a common tariff to imports of such products from other areas. The overseas territories will retain the right to protect their developing industries but will give equal treatment to imports from each of " the six ". The six countries will contribute $580 million, during the first five years of the Common Market, to a common fund for investment in the overseas territories.

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[14] OEEC Working Party report, *op. cit.*, p. 17.

The treatment of countries in process of economic development is among the questions singled out by the OEEC Working Party as particularly requiring the attention of member Governments. One possibility suggested for consideration is that such countries might join the Free Trade Area but be exempt for a time from such of its obligations as might be incompatible with effective development policies.

Comparison between the Common Market and the Free Trade Area is not easy at present since so many of the details of the wider scheme have still to be worked out. Two differences are already clear: first, the fact that the Common Market countries will have a common tariff against non-members of the Free Trade Area while the " outer ring " of countries which are members only of the wider association will retain their separate tariffs against the outside world, and, secondly, the decision of the Common Market countries that some kind of " common " regime for their intra-trade in agricultural products must be devised while it is still uncertain whether or not the rules of the Free Trade Area will cover food, feeding-stuffs, drink and tobacco at all. These two differences reflect the contrasting attitudes of the member Governments to the ultimate aims of the two associations.

For the countries of the Common Market, " economic union " has been stated as the eventual objective. But the governments contemplating membership only in the Free Trade Area appear rather to have adopted the approach of trying to discover the minimum degree of surrender of individual sovereignty over national economic and financial policies necessary to secure the major benefits of free trade within the Area. Except in the two fields already mentioned, however, (agriculture and the external tariff) and possibly in the sphere of harmonization of social charges on industry, the differences in practice between the results of the two approaches over the next few years may not be very great. The potential members of the Free Trade Area are apparently prepared to consider the possibility of some modification of present OEEC practice in the direction of providing for decisions by majority vote, rather than by unanimity, on certain matters such as the justification for invocation of escape clauses of various kinds; and it is not certain that the area of policies subject to effective " control " by majority vote in the institutions of the Common Market rather than to " consultation " will be significantly greater, at least in the early stages, than in the wider association. Nevertheless, it is to be expected that the difference in final aims, and the fact of the existence of the common tariff and the special institutions of the Common Market, will tend gradually to draw " the six " into a closer co-ordination of policies in all fields than is likely to be undertaken in the wider area.

3. THE PRESENT TRADE AND TARIFF STRUCTURE IN WESTERN EUROPE

The Pattern of Trade

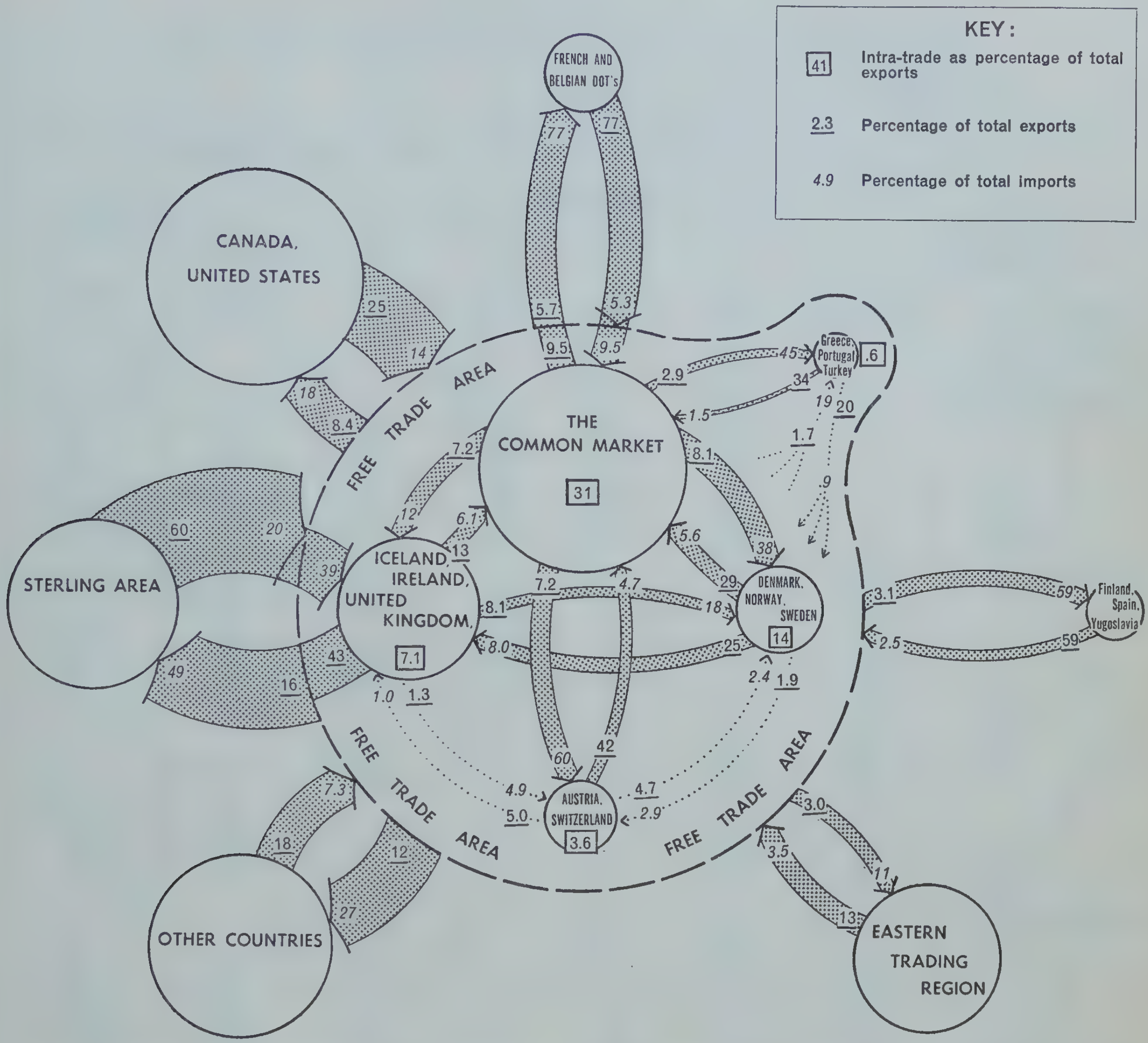
Over the last five years trade within western Europe has increased faster than its trade with other areas, partly as a result of the OEEC liberalization drive, but also as a consequence of fundamental changes in trade patterns. Import requirements of food and raw materials have shown a relative decline, owing to increased production in western Europe and technological changes favouring man-made raw materials at the expense of natural products. Exports from the six Common Market countries to other countries within the group were, however, the same proportion of their total exports in 1955 as in 1950. Amongst the OEEC member countries—provisionally assumed to constitute the Free Trade Area—intra-trade increased from 49 per cent of total exports in 1950 to 51 per cent in 1955, and from 40 per cent of total imports to 44 per cent. During this period the share in total exports of trade with other Free Trade Area countries actually declined in Denmark, western Germany, Iceland, the Netherlands and Turkey, while it increased in all the other countries and most markedly in Austria, Greece and Sweden.

Chart 1 shows the most important flows of exports and imports (of all commodities taken together) of the potential Free Trade Area members, and the underlying trade figures, with additional detail, are given in Tables 1 to 4. As can be seen, the export market formed by the six Common Market countries is of sufficient importance to the rest of the western European countries to provide a powerful argument against remaining outside any preferential area formed by " the six ", while for any individual country the case for association becomes progressively stronger with each new adherent.

The trade of the six countries of the Common Market with the outside world, and especially with overseas areas, largely takes the form of exports of manufactures and imports of food and raw materials, while intra-trade consists overwhelmingly of manufactures. In 1955, manufactures accounted in each country for between 50 and 60 per cent of total imports from other members of the group—except in the Netherlands, where the share was 80 per cent—and for between 45 and 70 per cent of imports from the other potential members of the Free Trade Area;

CHART 1

Trade flows in 1955 of the potential Free Trade Area



NOTE. — Figures in the Chart are percentages either of intra-Trade (based on exports) or of total exports from or imports into the areas indicated by the arrows. The width of each arrow is proportionate to the value (in terms of US dollars) of the trade flow represented. Except for the whole Free Trade Area, the area of each circle is proportionate to the total value of the exports of the countries concerned.

Greece, Portugal and Turkey have been treated specially in the Chart since it is probable that if they join the Free Trade Area they will join on terms rather different from those applied to the majority of member countries.

but manufactures accounted for only one-sixth of total imports into the Common Market from all other countries.

Intra-trade of the six countries accounts for nearly one-third of their total exports. In addition they have substantial exports—25 per cent of their total exports—to the other western European countries assumed to participate in the Free Trade Area. Benelux is particularly dependent on trade with other members of the Common Market, and the addition of the other OEEC countries is of more interest—as an extension of the customs-free export market—to western Germany, Italy and France than to the Benelux countries. For western Germany, indeed, the inclusion of the other countries—and in particular of Sweden, Austria and Switzerland—more than doubles the customs-free area for western German exports. However, of the Scandinavian countries, Denmark and

TABLE 1

Exports of the six Common Market countries in 1955 by commodity classes to countries within the group and to the world

I: Food, beverages and tobacco (SITC, Sections 0 and 1).

II: Fuels, lubricants and crude materials, including animal and vegetable oils and fats (SITC, Sections 2 to 4).

III: Chemicals (SITC, Section 5).

IV: Machinery and transport equipment (SITC, Section 7).

V: All other manufactured goods (SITC, Sections 6 and 8).

The totals include postal packages, live animals other than for food, and other special shipments (SITC, Section 9).

Millions of dollars

Exporting country and commodity group \ Country and area of destination	Belgium-Luxembourg	Netherlands	France	Western Germany	Italy	Total Common Market	WORLD
Belgium-Luxembourg							
I		19	13	16	3	51	104
II		91	73	74	14	252	418
III		26	12	14	4	56	187
IV		90	22	22	5	139	310
V		347	156	199	34	736	1 725
Total . . .		575	278	327	61	1 241	2 779
Netherlands							
I	97		42	205	37	381	838
II	79		36	90	7	212	527
III	22		7	18	5	52	193
IV	48		21	30	8	107	416
V	124		27	113	7	271	691
Total . . .	371		133	459	66	1 029	2 688
France							
I	30	26		89	32	177	747
II	133	31		139	62	365	821
III	15	12		15	14	56	360
IV	55	29		19	21	124	786
V	101	43		239	54	437	1 930
Total . . .	337	144		504	185	1 170	4 798
Western Germany							
I	9	10	14		9	42	147
II	103	78	154		81	416	735
III	34	48	39		38	159	680
IV	159	227	131		117	634	2 457
V	107	216	95		96	514	2 113
Total . . .	413	578	434		342	1 767	6 135
Italy							
I	10	9	21	113		153	412
II	3	4	12	29		48	296
III	2	2	10	9		23	127
IV	11	9	36	21		77	371
V	23	20	30	60		133	650
Total . . .	50	45	108	233		436	1 857
Total Common Market							
I	146	64	90	423	81	804	2 248
II	318	204	275	332	164	1 293	2 797
III	73	88	68	56	61	346	1 547
IV	273	355	210	92	151	1 081	4 340
V	355	626	308	611	191	2 091	7 109
Total . . .	1 171	1 342	953	1 523	654	5 643	18 257

Source : Yearbook of International Trade Statistics 1955, United Nations, New York, 1956.

TABLE 2

Exports of four northern countries in 1955 by commodity classes to countries within the group and to the world

Millions of dollars

Country and area of destination / Exporting country and commodity group[a]	Denmark	Norway	Sweden	Total of three Scandinavian countries	Finland	WORLD
Denmark						
I		4.8	24.3	29.1	9.9	694.2
II		2.7	7.0	9.7	1.6	61.8
III		1.5	2.3	3.8	2.6	26.0
IV		24.4	20.8	45.2	8.8	159.5
V		10.6	20.5	31.1	4.1	94.3
Total		44.0	74.9	118.9	27.0	1 041.6
Norway						
I	1.1		10.0	11.1	0.9	135.6
II	5.2		11.4	16.6	3.3	175.4
III	14.3		11.9	26.2	3.0	57.2
IV	1.4		5.8	7.2	4.8	45.1
V	11.3		18.8	30.1	2.5	220.9
Total	33.3		58.1	91.4	14.5	634.5
Sweden						
I	3.8	2.8		6.6	0.4	49.1
II	26.8	17.9		44.7	3.0	765.7
III	5.7	3.8		9.5	1.6	45.4
IV	21.1	106.4		127.5	22.7	380.5
V	42.9	36.5		79.4	10.4	484.6
Total	100.4	167.5		267.9	38.1	1 725.4
Total of three Scandinavian countries						
I	4.9	7.6	34.3	46.8	11.2	878.9
II	32.0	20.6	18.4	71.0	7.9	1 002.9
III	20.0	5.3	14.2	39.5	7.2	128.6
IV	22.5	130.8	26.6	179.9	36.3	585.1
V	54.2	47.1	39.3	140.6	17.0	799.8
Total	133.7	211.5	133.0	478.2	79.6	3 401.5
Finland						
I	0.1	0.1	0.3	0.5		11.9
II	10.6	8.4	5.6	24.6		425.4
III	—	—	0.2	0.2		2.1
IV	0.2	0.3	1.1	1.6		95.7
V	12.1	1.6	5.5	19.2		252.5
Total	23.0	10.5	12.6	46.1		788.1

Source : Yearbook of International Trade Statistics 1955, United Nations, New York, 1956.

[a] See Table 1 for the commodity classification.

TABLE 3

Exports of western European countries in 1955 by commodity classes to countries within the Free Trade Area and to the world

Millions of dollars

Exporting country and commodity group [a] / Country or area of destination	The Common Market	United Kingdom, Iceland and Ireland	Three Scandinavian countries [b]	Austria and Switzerland	Three southern European countries [c]	Total Free Trade area	Finland, Spain and Yugoslavia	Total world
The Common Market								
I	804	341	108	167	14	1 434	28	2 248
II	1 293	266	244	251	61	2 115	53	2 797
III	346	124	104	114	47	735	71	1 547
IV	1 081	189	388	331	193	2 182	224	4 340
V	2 091	395	636	439	210	3 771	186	7 109
Total	5 643	1 319	1 485	1 322	525	10 294	568	18 257
United Kingdom, Iceland and Ireland								
I	68	212	19	6	8	313	3	729
II	160	80	173	10	18	441	33	733
III	89	20	38	9	11	167	16	652
IV	360	96	232	30	71	789	98	3 041
V	370	125	215	45	32	787	68	3 030
Total	1 074	601	685	107	149	2 616	223	8 496
Three Scandinavian countries [b]								
I	246	352	47	18	2	665	15	879
II	402	302	71	14	4	793	20	1 003
III	21	15	40	3	7	86	14	129
IV	114	30	180	11	16	351	49	585
V	190	139	140	17	13	499	25	800
Total	992	844	478	63	42	2 419	124	3 401
Austria and Switzerland								
I	59	4	2	2	—	67	—	88
II	189	5	2	11	4	211	1	243
III	75	8	10	7	10	110	9	245
IV	164	25	20	15	14	238	30	442
V	349	53	60	37	18	517	37	993
Total	836	101	94	72	46	1 149	81	2 011
Three southern European countries [c]								
I	150	43	10	22	3	228	15	398
II	86	25	4	5	—	121	14	231
III	5	5	2	—	—	12	—	23
IV	1	—	—	—	—	1	—	6
V	17	14	3	1	2	37	1	116
Total	268	88	20	30	5	411	30	780
Total Free Trade Area								
I	1 327	952	186	215	27	2 707	61	4 342
II	2 130	678	494	291	87	3 680	121	5 007
III	536	172	194	133	75	1 110	110	2 596
IV	1 720	340	820	387	294	3 561	401	8 414
V	3 017	726	1 054	539	275	5 611	317	12 048
Total	8 813	2 953	2 762	1 594	767	16 889	1 026	32 945
Finland, Spain and Yugoslavia								
I	130	57	28	17	4	236	. .	294
II	228	161	29	17	7	442	. .	638
III	6	3	2	2	1	14	. .	24
IV	2	1	2	—	4	9	. .	109
V	56	71	21	7	4	159	. .	391
Total	422	293	82	43	20	860	13	1 456

Sources and methods: See Appendix B.

[a] See Table 1 for the commodity classification.

[b] Denmark, Norway, Sweden.

[c] Greece, Portugal, Turkey.

TABLE 4

Exports of major trading areas in 1955 by commodity classes to countries within each area and to the world

Millions of dollars

Exporting countries and commodity group *a* / Country or area of destination	Free trade area	*of which :* The Common Market	Finland, Spain and Yugoslavia	Eastern trading region *b*	Sterling area *c*	French and Belgian affiliated overseas areas	Canada, United States	Other countries	TOTAL WORLD
Free Trade Area									
I	2 707	1 327	61	234	410	291	396	243	4 342
II	3 680	2 130	121	177	183	175	291	380	5 007
III	1 110	536	110	137	489	131	167	452	2 596
IV	3 561	1 720	401	169	1 919	428	491	1 445	8 414
V	5 611	3 017	317	238	2 167	752	1 398	1 565	12 048
Total	16 889	8 813	1 026	987	5 292	1 881	2 781	4 089	32 945
of which: The Common Market									
I	1 434	804	28	104	119	263	148	152	2 248
II	2 115	1 293	53	65	67	156	110	231	2 797
III	735	346	71	85	146	125	98	287	1 547
IV	2 182	1 081	224	79	347	388	192	928	4 340
V	3 771	2 091	186	143	583	697	746	983	7 109
Total	10 294	5 643	568	479	1 274	1 734	1 300	2 608	18 257
Finland, Spain, Yugoslavia									
I	236	130	..	..	..	..	35	..	294
II	442	228	..	..	..	..	31	..	638
III	14	6	..	..	..	..	2	..	24
IV	9	2	..	..	..	..	1	..	109
V	159	56	..	..	..	..	54	..	391
Total	860	422	13	239	36	10	123	175	1 456
Eastern trading region *b*									
I	243	94	45	..	..	..	..	..	..
II	611	259	106	..	..	..	..	..	..
III	64	26	15	..	..	..	..	..	..
IV	52	13	30	..	..	..	..	..	..
V	251	80	40	..	..	..	..	..	..
Total	1 252	473	237	7 500	261	27	63	203	9 543
Sterling area *c*									
I	1 855	247	..	..	..	..	319	..	..
II	3 630	1 938	..	..	..	..	736	..	..
III	37	7	..	..	..	..	11	..	..
IV	19	1	..	..	..	..	—	..	..
V	489	109	..	..	..	..	297	..	..
Total	6 138	2 302	63	294	2 345	61	1 379	1 597	11 877
French and Belgian Affiliated overseas areas									
I	901	855	..	..	..	..	79	..	..
II	674	554	..	..	..	..	67	..	..
III	20	19	..	..	..	..	—	..	..
IV	6	5	..	..	..	..	—	..	..
V	263	250	..	..	..	..	45	..	..
Total	1 878	1 687	15	21	36	150	193	144	2 437
Canada, United States *d*									
I	1 338	503	99	8	179	12	504	864	3 004
II	1 534	872	117	8	157	16	1 497	821	4 352
III	341	195	10	1	86	6	360	548	1 366
IV	690	376	56	—	505	90	1 410	1 823	5 678
V	952	347	17	1	318	21	1 945	1 209	5 026
Total	4 940	2 354	331	19	1 292	148	5 797	5 389	19 799
All other countries Total	3 591	1 616	47	361	1 556	183	5 269	3 456	14 463
of which : Japan									
I	28	..	—	—	24	3	53	28	136
II	41	..	—	—	9	1	57	15	123
III	7	..	—	—	11	—	8	68	94
IV	10	..	11	—	58	—	20	148	247
V	88	..	4	11	479	7	362	453	1 404
Total	174	..	15	11	581	11	500	712	2 004
TOTAL WORLD	35 548	17 667	1 732	9 421	10 818	2 460	15 605	15 053	92 520

Sources and methods : See Appendix B.

[a] See Table 1 for commodity classification.

[b] Eastern Europe, the Soviet Union and Mainland China.

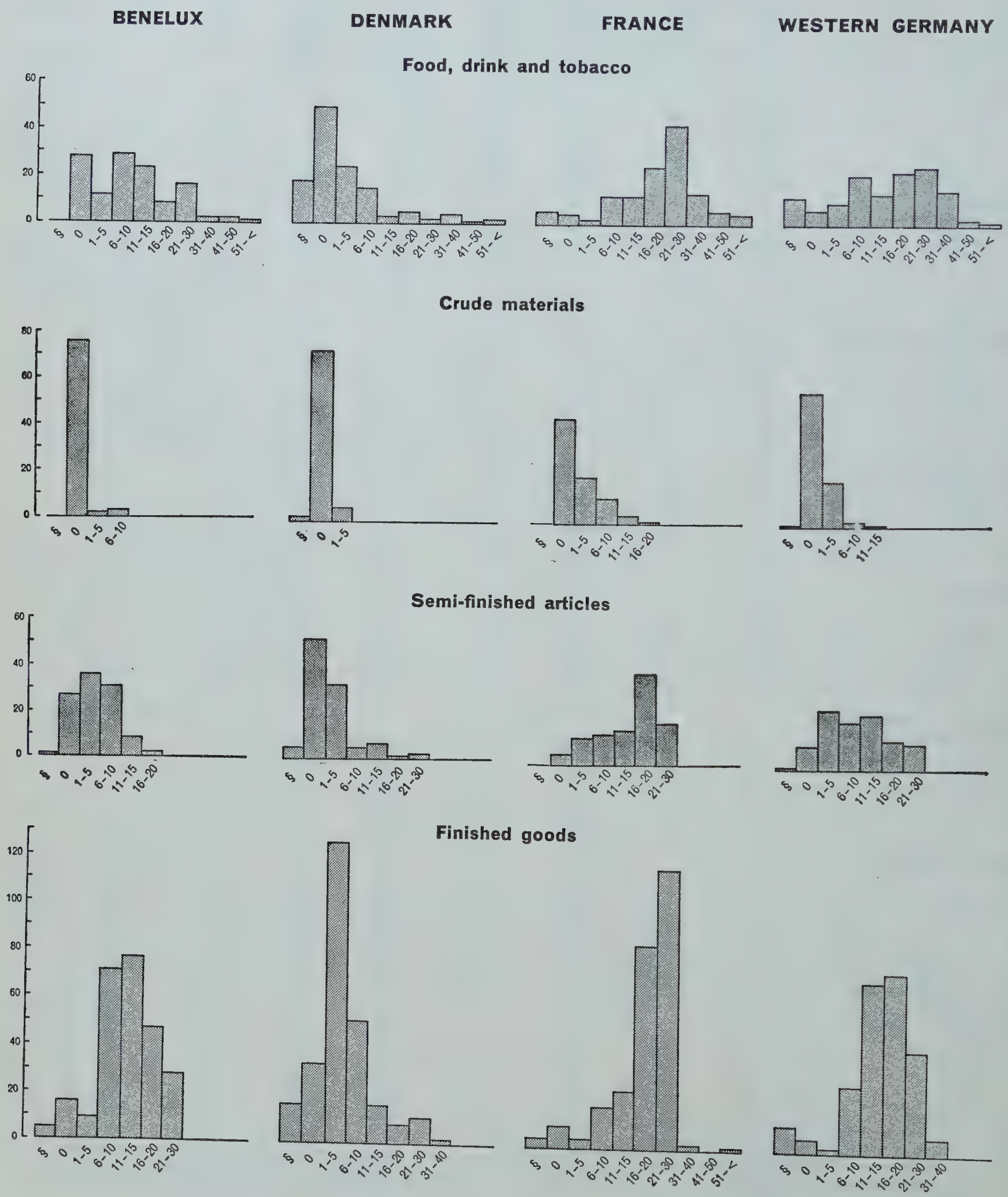
[c] Excluding United Kingdom, Iceland and Ireland.

[d] United States world totals include Special Category exports of $1,883 million, the destinations of which are not available.

CHART

Ad Valorem incidences of tariffs

Frequency distribution of incidences in 570 SITC groups: the vertical scale indicates

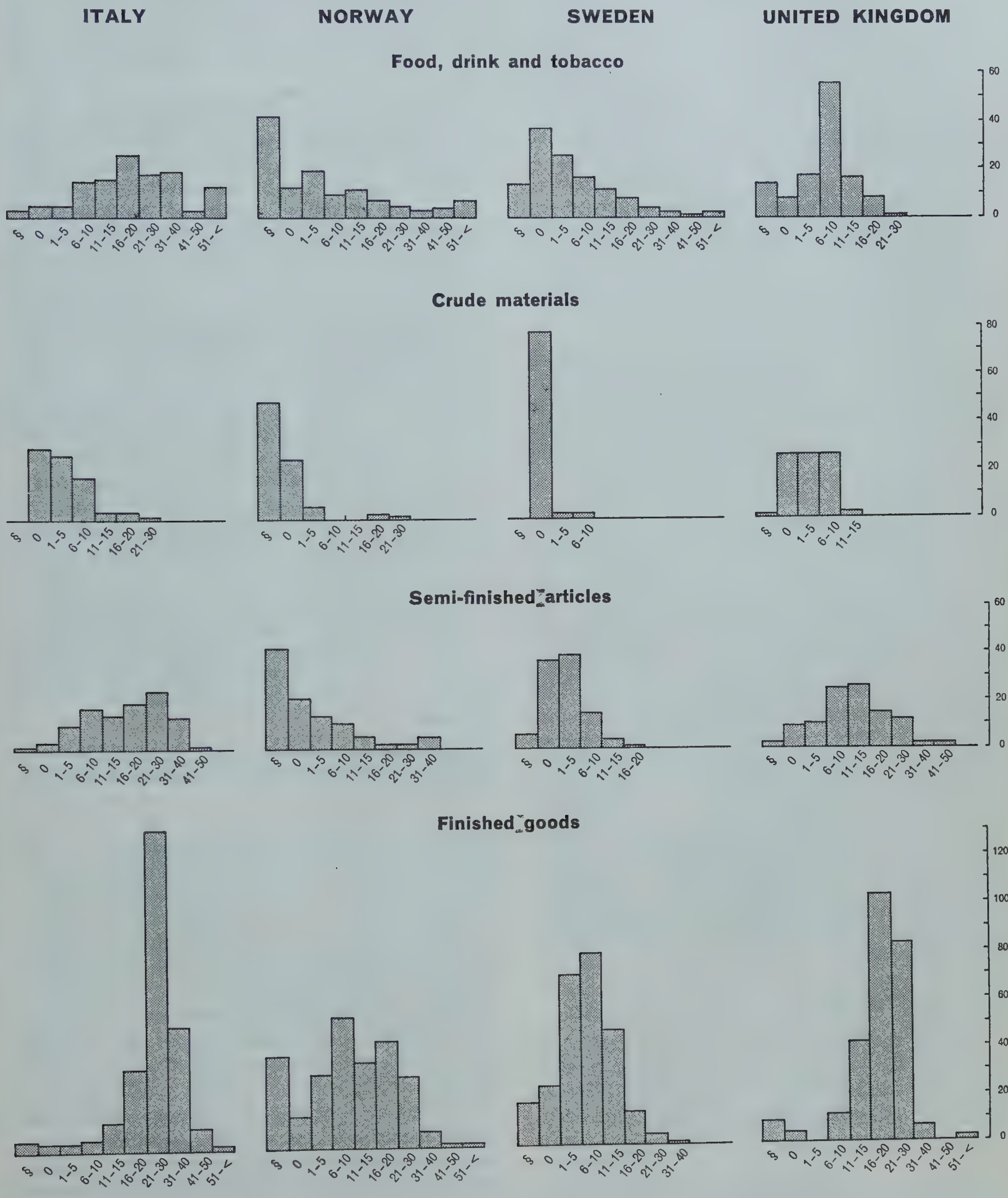


§ = Items for which tariff incidences are not known.

2

in selected western European countries

the number of groups bearing the tariff incidences shown in the horizontal scale



Sources : The data in this chart are based on a study made by the GATT secretariat in 1952.

Sweden apply low tariffs, and their inclusion will probably not affect exports from western Germany, or from any other country of the Common Market, very much—at least not immediately.

The potential market for agricultural products within the Free Trade Area is clearly of great importance to Denmark, as well as to France, the Netherlands and Italy within the Common Market, and to the countries of southern Europe. Irish exports, consisting mainly of food, are destined overwhelmingly to the United Kingdom and their market will be little affected if the British terms for joining the Free Trade Area are accepted. Icelandic exports (almost exclusively fish) have recently found growing outlets in eastern Europe. For these two countries neither the benefits of joining the Free Trade Area nor the necessity to do so would seem very important immediately. The longer-run issues involved for these and other under-developed countries are discussed in Section 4, below.

For the group of 12 industrial countries within the potential Free Trade Area[15] manufactures are predominant in intra-trade, but other aspects of trade are also important. The intra-trade of the three Scandinavian countries is already fairly highly concentrated on manufactures; but their exports to other potential members of the Free Trade Area include a high proportion of raw materials and semi-finished products which already face only fairly low trade barriers in most countries. Nevertheless, the interest of the Scandinavian countries in expanding their exports of manufactures gives them an interest in joining the Area. Of the other potential members of the Free Trade Area, it can be seen that the United Kingdom is considerably less dependent on trade with the rest of western Europe than are most of the other countries, but the proportion of its exports going to this area is nevertheless significant, and about 40 per cent of United Kingdom imports of manufactures come from other possible Free Trade Area countries. The Common Market countries absorb 36 and 50 per cent respectively of the total exports of Switzerland and Austria, and the potential Free Trade Area 53 and 66 per cent, while the bulk of these exports are directly competitive with production in other countries of the Area.

The Present Tariff Structure

Chart 2 shows for the Benelux union and seven other countries the distribution, according to their *ad valorem* incidence, of tariff rates on 570 items of the 1951 Standard International Trade Classification. In some countries, rates on a number of items have been changed since the compilation of the data on which the chart is based, but it is unlikely that these changes have significantly affected the general picture. For Italy, in particular, the figures in the table represent the " legal " tariff as established in 1950, and later amended as a result of negotiations under the GATT and of bilateral agreements, and not the " tarif d'usage " as applied at the present time. The latter may often be below the levels of the legal tariff.

The figures in the table therefore give some indication of the influence of the Italian tariff on the calculation of the rates to be applied in the common tariff of " the six "; but they offer less guidance on the probable impact on Italian industry of the removal of tariffs on the intra-trade of the Free Trade Area and the adoption of the Common Market tariff against the trade of the rest of the world.

Amongst the industrial countries, the concentration of the duties imposed by Benelux and the Scandinavian countries within the lower ranges is in marked contrast with the frequency of incidences exceeding 15 per cent in Italy, France and—to a lesser extent—the United Kingdom and western Germany. Italy seems to have more very high incidences (over 30 per cent) than other countries, and where these exist in other countries they are concentrated in the food, drink and tobacco sector. An examination of tariff incidences in the semi-manufactures and the finished-goods sectors shows in each case a variation from country to country similar to that in the over-all distribution. There is much less variation in the raw materials category. Incidences above 10 per cent are very rare, and the number of incidences above 5 per cent are significant only in France, Italy and the United Kingdom.

If, somewhat arbitrarily, 10 per cent is taken as the dividing line between high and low tariffs in the semi-manufactures sector, only some 10 per cent or less of all tariff incidences fall above this line in the Benelux countries, Denmark and Sweden, as compared with more than 70 per cent in France and Italy and about 50 per cent in western Germany and the United Kingdom. In the finished-goods sector, taking 20 per cent as the borderline, only about 10 per cent of all tariff incidences fall above this line in Benelux and 5 per cent or less in Denmark and Sweden. In Italy, however, nearly two-thirds of all incidences in this sector are above the line, in France nearly half, and significant proportions in western Germany, Norway and the United Kingdom.

The data on which the figures quoted in this sub-section are based do not, of course, permit the calculation of a satisfactory measure of the relative protective effects of the tariffs of the various countries. Duties of equal incidence do not necessarily have equal effect in

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[15] " The six " plus the United Kingdom, Norway, Sweden, Denmark, Austria and Switzerland.

TABLE 5

Ad valorem incidence of import duties for selected items in nine countries

Percentages

SITC item and description	Austria[a]	Benelux	Denmark	France	Western Germany	Italy[b]	Norway	Sweden	United Kingdom
266–01 Staple fibre	0	6	0	19	15	19	2	2	37
272–05 Salt	4	11	2	30	18	0	..	0	5
532–03 Synthetic tanning materials	0	0	5	18	20	16	0	0	10
533–02 Printer's ink	5	12	3	18	25	15	5	4	13
629–01 Rubber tyres and tubes	42	24	12	19	30	24	6	17	27
631–03 Fibre boards	8	..	3	25	12	18	13	6	20
641–01 Newsprint	6	10	0	25	12	17	..	0	10
641–08 Wallpaper	20	20	15	25	18	33	5	10	20
632–01 Paper bags, cardboard boxes, etc.	54	20	30	24	23	30	26	13	20
651–04 Cotton yarn and thread	3	4	1	17	16	25	7	2	13
651–06 Synthetic yarn and thread	20	11	11	18	19	28	14	6	41
653–02 Woollen and worsted fabrics	23	16	4	18	22	22	21	6	21
661–02 Cement	23	3	0	10	5	25	31	4	8
663–05 Carbon and graphite products	2	4	0	11	15	19	..	3	51
664–02 Optical and spectacle glass, unworked	0	0	..	21	10	17	0	0	15
664–04 Plate glass	33	16	14	20	25	31	34	12	12
666–03 Porcelain, table and other household	33	24	11	25	20	36	22	8	15
699–07 Nails, bolts, screws, etc.	22	8	1	21	18	26	7	4	17
699–12 Hand tools, tools for machines	5	9	1	18	15	26	19	4	16
711–05 Internal combustion engines	14	9	4	22	20	32	11	13	21
713–01 Tractors	57	9	5	22	20	36	1	10	23
715–01 Machine tools	5	6	5	16	9	17	17	7	18
716–08 Textile machinery	3	6	5	18	13	25	15	6	27
716–14 Ball, needle or roller bearings	8	6	1	27	20	27	20	10	20
721–04 Radio apparatus	23	14	20	21	14	33	12	13	26
732–01 Passenger motor-cars	43	24	7	30	32	40	30	15	33
733–01 Bicycles	58	18	6	30	15	50	37	23	20
735–02 Ships (over 250 gross tons)	13	0	0	0	0	11	..	0	10
841–05 Clothing, outerwear other than knitted	13	24	6	23	24	28	26	11	24
851–02 Leather footwear	8	20	13	21	19	29	18	16	18
861–01 Optical instruments	5	14	4	26	12	25	3	3	26
864–01 Watches and parts	8	9	10	15	14	7	6	3	33
899–15 Toys and games	16	18	8	32	20	33	19	15	23

Sources : The data in this table and in Chart 2 are based on a study made by the GATT secretariat in 1952.

[a] A new Austrian tariff will shortly be put into effect. Since the new tariff embodies great changes in the tariff structure, Austria has not been included in Chart 2.

[b] The rates shown for Italy are those of the legal tariff. In some cases the rates actually applied may be lower.

diverting demand from imports to home production, and no weighting of rates of duty which is possible with existing data can adequately reflect the protective effect of either individual duties or the tariff as a whole. Even with the break-down of customs revenue and trade values into 570 categories, there is still some tendency for the most protective duties to be under-weighted and the least protective to be over-weighted; moreover, the different SITC items considered are of varying importance in the trade of the countries concerned. But, with all these qualifications, the differences between one country and another are sufficiently marked to suggest that the removal of protection against competitors in other member countries of the Free Trade Area will probably have the greatest impact on domestic industry in France, and possibly in Italy, and the least in the Benelux and Scandinavian countries.

However, two offsetting factors have to be borne in mind. First, the common tariff imposed by the Common Market on semi-manufactures may well be higher than existing Benelux rates and so tend slightly to raise manufacturing costs in those countries, as compared with those of other members of the Free Trade Area, to the extent that semi-manufactures are imported into the Benelux countries from outside the Area.[16] Secondly, in so far as the loss of tariff protection brings about a worsening of the balance of payments of a former high-tariff country, exchange rates will have to be adjusted to restore equilibrium; and the adjustment will have an incidental effect equivalent to some restoration of protection. No country is likely entirely to escape the need for some adjustment of its industrial structure, but no country can possibly see every branch of its industry suffer in the long run, though some countries may have to accept a certain worsening of their terms of trade.

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[16] Press reports suggest that a provision for a quota of duty free imports in such cases may modify this effect to some extent.

A further illustration of tariff disparities is provided by the figures for Benelux and eight other countries given in Table 5, which also indicate some sectors in which competitive conditions will be fundamentally changed by the removal—so far as intra-member trade is concerned—of duties which are at present high in nearly all countries in western Europe. Tanning materials, optical glass, cotton yarn and staple fibre are clear examples of cases where the adoption of a common tariff based on an average of existing rates would raise the cost of imported semi-manufactures from outside the Free Trade Area for processing industries in some member countries of the Common Market. Motor-cars, radio apparatus, some types of clothing, rubber tyres, plate glass, porcelain and toys and games are samples of products for which the market within the Free Trade Area seems likely to become considerably more competitive so far as competition between industries in member countries is concerned; but within every member country imports of these goods from other members will receive a noticeable margin of preference over imports from the outside world.

The foregoing comparison of tariff structures in western Europe underlines one important difference between the implications of membership of the Common Market or the Free Trade Area for the "low tariff" countries of western Europe. For example, in joining the Common Market the Netherlands may be obliged to accept a common tariff on imports of semi-manufactured goods from outside the Free Trade Area higher than would be imposed if only the interests of the Netherlands economy—heavily dependent on exports and on the processing of imported materials and semi-manufactures—were consulted.[16a] By contrast, for countries such as Denmark, Sweden or Switzerland, the possibility of retaining their separate low tariffs on imports from the world outside the Free Trade Area tends to reinforce other considerations, some of them political, which may induce them to join this association rather than the closer community of "the six".

It is impossible to predict with any certainty the changes in trade flows likely to accompany the formation of the Common Market and the Free Trade Area. The present structure of western European trade, and the relatively low degree of protection at present accorded in most countries to raw materials and fuels, suggest that trade in manufactures is likely to be most affected (leaving aside, for the time being, the possible effects of the policies adopted towards agriculture and trade in food products). It follows that intra-trade may well be affected rather more than trade with countries outside the Area, which, so far as European imports are concerned, is concentrated to a considerable extent on food and raw materials. For individual countries of the Area, the effects are impossible to predict. Clearly, the low-tariff countries will tend to have to face less far-reaching adjustments of their trade and industrial structure than those which may be demanded of the countries which at present impose high tariffs; but the potential benefits to be gained by any country may not be related at all obviously either to its present tariff structure or to the degree of present concentration of its export trade on western European markets.

[16a] See footnote 16.

4. THE LONG-RUN IMPLICATIONS OF THE NEW PROPOSALS

The Benefits for Industrial Member Countries of the Free Trade Area

Any prediction about the probable benefits to be gained from the establishment of the Common Market or the Free Trade Area is bound to be based almost entirely on *a priori* reasoning. The world has not yet had any experience of the effects of converting a large number of separate economies, in the state of industrial development now reached in north-western Europe, into a single market, and arguments based on observed differences between present conditions in western Europe and those in the single market of the United States are apt to be somewhat misleading. For example, arguments in favour of economic integration in western Europe are frequently supported by reference to the much higher per capita national production in the United States than in any western European country. But this contrast in the absolute levels of per capita income may be attributable at least in part to a richer per capita endowment of natural resources in the United States, with a consequent premium on manpower and stimulus to the substitution of machinery. It is difficult to show conclusively, moreover, that the rate of growth of output per worker employed in the United States has been higher in normal times in the fairly recent past than the rate in a number of smaller countries.[17] It may also be of some relevance to note that the standards of living and levels of productivity closest to those of America have been achieved by some of the smaller countries of western Europe, thus suggesting that sheer size of the home market may be less important than other factors.

Moreover, even after the formation of the Common Market and the Free Trade Area, western Europe will not be a single market in the same sense as is the United States. Among other differences, labour and capital are likely to be less mobile in western Europe—even if formal restrictions on movement between countries should eventually be abolished—and national variations in traditions and tastes are likely to delay the development of a true mass market in some sectors of production.

Nevertheless, while such considerations may reasonably dictate some caution in assessing the scale of the benefits that are likely, it can hardly be doubted that the long-run effects of removing trade barriers, as now contemplated in western Europe, will be of advantage to the participating countries. They will benefit from the encouragement given to a concentration of resources in each country on output of those goods that it can produce at least relative costs, and also from the economies of scale which should be achieved as production in some industries develops in the larger units likely to become economic in the Common Market of 160 million people—or in the still larger single market of about 240 million which would be formed if all the industrial countries of western Europe joined the Free Trade Area.[18]

It is, of course, true that even within present national frontiers industries are not invariably organized in units of optimum size in relation to their markets, but increased competition from outside should help to break down the live-and-let-live attitude among industrialists which often tends to perpetuate a situation of this kind within a fairly small protected market. A more enterprising attitude on the part of industrialists towards the adoption of new inventions, improvements in techniques, etc., may also be induced by the keener competition likely to be brought about by the removal of a considerable amount of the protection which they at present enjoy.

Certain other advantages may also be expected. The creation of a new preferential area, with some individual tariffs against the outside world unchanged and the common tariff of " the six " not greatly below the average level of its original constituents, may well encourage a higher rate of direct investment in western Europe by overseas firms who find it more difficult to export to the area and therefore set up branches within the tariff barrier. In addition, the tendency for the intra-trade of western Europe to expand to some extent at the expense of trade with the outside world may well turn the terms of trade with other countries in favour of the Common Market or Free Trade Area countries as a group. Even if this diversion of trade represents in part a switch of demand from low-cost sources of supply outside western Europe to higher-cost sources within the Area, any consequent direct rise in import costs may well be offset for member countries—though not for the world as a whole—by the indirect effects of the change in trade flows on their terms of trade.[19]

While some confidence may be felt in the long-term beneficial effects of the formation of the Common Market and the Free Trade Area on their members as a group, the benefits may be very unevenly distributed among individual countries. The low-tariff countries clearly have the best chance to extend their export markets in countries where tariffs are at present high without having to face significantly increased competition in their home markets. By contrast, a country which has succeeded, by the use of a protective tariff or other measures of trade restriction, in turning the terms of trade in its favour may face some loss of this advantage when its home market is opened to the competition of industry in other member countries. On the other hand, such a country may well have more to gain in the long run than has a low-tariff country from the stimulating effects of competition on industrial enterprise and efficiency, and from the transfer of resources from less to more productive uses which may be forced upon it.

A further factor tending to make the long-term benefits of the Common Market and Free Trade Area fall unevenly on their members is the possibility that the important changes in industrial location likely to result from it will reinforce tendencies towards industrial concentration and centralization. Many new industrial plants are likely to be set up, including both those of European enterprises seeking to realize the advantages of large-scale production, and the direct investment of overseas firms seeking to establish themselves inside the new preferential area. The already highly developed industrial centre embracing the valley and outlet of the Rhine is likely to offer a strong attraction as a site for these new plants, because of considerations such as transport costs, ease of communication, skilled labour, and availability of commercial and other services. Moreover, some of the European and overseas firms which earlier had established branch offices in various European countries in order to be inside the national tariff walls may be induced to reinvest in a more centralized location, particularly if they already have their headquarters in such an area.

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[17] See G. D. A. MacDougall: " Does Productivity Rise faster in the United States ? " *Review of Economics and Statistics*, May 1956.

[18] For a discussion of how these advantages might be brought about, and for a study of relations between size of plant and production costs, see Tibor Scitovsky, " Economies of Scale and European Integration ", *American Economic Review*, March 1956, and J. S. Bain, " Economics of Scale, Concentration and Entry ", *American Economic Review*, March 1954.

[19] For detailed discussion of the factors involved in assessing the balance of advantage for member countries, and for the world as a whole, of the changes in trade flows produced by the formation of a customs union or free trade area see J. E. Meade, *The Theory of Customs Unions*, Amsterdam 1955.

The overcrowded condition of the central industrial regions of Europe may serve as some deterrent, but with increasing freedom for labour movements the influence of this factor may not be very great. Unless the problem is foreseen in time and active policies pursued with the aim of securing a more appropriate regional distribution of industry and population, there is some likelihood that less centrally located or less developed parts of the Free Trade Area may fail to attract new industrial investment as much as hitherto, or even lose some of their present industrial establishments.

The Problem of the Less Developed Areas of Europe

The discussion in this section has so far been conducted in terms of the effects on their members of a Common Market and Free Trade Area both composed entirely of countries at more or less the same stage of economic development. But, in fact, the Governments of Portugal, Greece, Turkey, Ireland and Iceland have already shown some interest in the possibility of joining the Free Trade Area if acceptable terms can be arranged.

The OEEC Working Party on the Free Trade Area mentioned that " Some member countries, the economies of which ' are in process of economic development ' have intimated their desire to belong to the Area, while explaining that for the time being they would have to maintain their existing protection either on all or on a substantial part of their imports ". As was mentioned in Section 2, the Working Party made no recommendation on this question, but referred it to the OEEC Council, which has arranged for it to be studied further.[20]

The essential economic argument against absorbing those countries into a Free Trade Area on the same terms as other members was stated in the *Economic Survey of Europe Since the War* : [21]

> " The case for industrial protection in the relatively retarded countries of southern Europe goes beyond the traditional ' infant industry ' argument. It has rather to do with the fundamental lack of balance between industry and agriculture in those countries. The existence of vast surpluses of manpower in agriculture creates a situation where money costs of production in industry are higher in relation to agricultural money costs than is warranted by comparative real costs in the two branches of the economy.[22] Under such conditions, the exchange rate at which the foreign account tends to be in balance would be one at which industrial costs tend to be systematically non-competitive with foreign costs, and *vice versa* for agriculture.
>
> " If this is so, the abolition of trade barriers between the poorer and the richer countries would contribute to intra-European specialization only in the perverse sense of perpetuating the role of the southern countries as exporters of agricultural products and importers of manufactures. This is tantamount to saying that the gap between levels of economic development in the high-income and the low-income areas of Europe would continue to widen, which could hardly be regarded as an achievement in economic integration."

However, as the SURVEY pointed out, the existing customs tariffs and other protective measures in force in the under-developed countries of southern Europe are almost certainly not of the most suitable pattern for encouraging both a shift of labour from agriculture to industry and a development of the most economic structure of industrial output. It was suggested that a flat rate *ad valorem* import duty on all industrial products which could reasonably be expected to be produced in these countries would be the most rational way of offsetting the general handicap to industrial development, while leaving full scope for each country to specialize in the lines of industrial production for which it was best equipped. The level of the duty would ideally vary inversely from country to country according to the degree of development, of which the amount of rural surplus population might prove a sufficiently adequate indicator.[23]

If some such principle were accepted as the basis for dealing with tariffs on inter-member trade, the economic case for these countries' entering the Free

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[20] See OEEC Press Release (57) 7.

[21] *Economic Survey of Europe since the War*, Geneva, 1953, pp. 219 and 220.

[22] " To say that there is surplus manpower in agriculture is only one way of saying that other branches of the economy can absorb labour from agriculture with relatively little, if any, sacrifice of agricultural output—or that the real cost to the community of increasing industrial output is relatively low. "

[23] One weakness of this device is that it does not help potential export industries. An alternative and in some respects preferable method of achieving the desired encouragement to industrial development would be the payment of a flat-rate subsidy per head to industrial employment, which would have the effect of encouraging the development of labour intensive industry in particular. Another, avoiding even this degree of discrimination, would be to pay a flat-rate subsidy to all industrial exports in addition to charging the import duty. However, the practical possibilities of applying such measures in the countries concerned are probably slight.

Trade Area would be strengthened. They would gain better market opportunities for their newly developing production of manufactured goods; but the treatment of their agricultural exports would, of course, be of much greater immediate importance. Greece, Turkey and Portugal contribute only 2 per cent of total imports of foodstuffs into the other potential Free Trade Area countries, but, as can be seen from Chart 1, their total exports to the Free Trade Area (mainly foodstuffs) represent 53 per cent of their export trade.

Many of the typical export products of Greece, Turkey and Portugal—wine, tobacco, fresh and dried fruit, vegetables and fish [24]—compete directly with the production of Free Trade Area countries, especially France and Italy, or with the produce of the overseas territories of the member countries. Clearly, any danger of an intensification of mutual preferences in the agricultural sector among the Free Trade Area countries provides a powerful incentive for the southern European group to join the Area if possible.

The position of southern Italy—the main under-developed region of the Common Market—is rather different from that of the other southern European countries, partly because the problem of economic development of southern Italy is that of dealing with a depressed region within a national territory which has otherwise reached a high level of industrial development, partly because Italy intends to join the Common Market, with its aim of eventual full economic union of the member countries. The first characteristic implies one possible advantage for southern Italy not possessed by the other under-developed countries—that the effect of the Common Market and Free Trade Area will be to make available to industry in southern Italy imports from all these countries free of import duty, whereas in the past firms in the south have to some extent been forced by the incidence of the tariff to buy equipment from the industries of northern Italy, even where these are higher cost sources than the alternative suppliers elsewhere in Europe. Both industrial and agricultural equipment can already be bought in Sicily at specially low rates of duty, or duty free; but this facility is not yet available to the same extent in continental southern Italy. The importance of the second distinction—membership of the Common Market—is that acceptance of its aims should logically imply a willingness by its members, acting as a group, to accept joint responsibility for promoting economic development in southern Italy in the same way as each accepts the need to assist depressed or under-developed areas within its own territory.

The rules of the Common Market, on the other hand, appear to limit the range of measures which Italy itself may take to encourage industrial development in the south. It seems, however, that some scope for using direct or indirect production subsidies will remain; and presumably a special dispensation from any of the rules could be requested at any time if this seemed necessary in order to carry out an effective development policy. But even if it can be assumed that the rules of the Common Market will permit the Italian Government to offer the necessary direct incentives for private industry to move to southern Italy, this will not meet the prior need for large infra-structure investment to provide the base for further industrialization.

It is generally conceded that to finance all the investment necessary for a reasonable rate of development in southern Italy and, still more, in the other countries of southern Europe out of their own resources would impose a heavy, and in some cases intolerable, strain on the economies of those countries. They therefore need to import capital. In a situation in which differences in interest rates from country to country reflect the influence of individual governments' monetary and credit policies rather than differences in the real rate of return on capital, however, there is little reason to hope for a noticeably more economic pattern of international capital movements as a result of removing restrictions. There is certainly little reason to suppose that the removal of restrictions on capital movements within the Common Market or the Free Trade Area during the next few years would by itself induce a more rapid flow of funds towards the under-developed regions; and indeed, the possibility of a perverse flow from the poorer to the richer members cannot be ruled out.

Such information as is so far available on the proposed European Investment Bank, to operate within the Common Market, suggests that this institution may not be adequately constituted to meet these problems. If, as has been suggested, the Bank is to operate largely with money raised in European capital markets and on strictly commercial principles, it seems somewhat doubtful whether it will be able to contribute directly to the financing of the types of investment which are most urgent in southern Italy or, if its field of operations should be extended, in the other southern European countries. Some scope may, however, exist for financing such development via direct lending by the Bank to governments, or on the basis of government guarantees.

If assistance on a more significant scale is to be given, it seems that special allocations of public funds by the richer countries to aid depressed areas in Europe will be required to be dispensed in the form of grants or specially cheap or long-term loans for infra-structure investment, reforestation and other similar purposes. The case for aid of this kind—already strong—will be strengthened if these regions, through the Common Market and the Free Trade Area, become still more closely associated with the more developed countries, and with the aim of a far-reaching economic integration.

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[24] For Turkey the cereals market in western Europe is also extremely important.

The Implications for Certain Non-member Countries in Europe

Three countries in Europe, outside eastern Europe and the Soviet Union, are not at present engaged in the negotiations on the Common Market or the Free Trade Area—Finland, Spain and Yugoslavia.

It would in fact be very difficult for Finland to contemplate staying outside an area in which Swedish and Norwegian forestry products, in particular, received preferential treatment, since western Europe is the market for almost 70 per cent of Finnish exports of these products. Moreover, Finland's efforts to increase its range of manufactured exports would also be seriously hampered by its exclusion from the Area. But to join the Area would also face Finland with some serious problems. The present balance-of-payments situation, and the needs of its economic development policy, might make it impossible for Finland to accept all the obligations of membership immediately. In addition, the dependence of Finland on trade with eastern Europe and the Soviet Union is sufficient to make it difficult for Finland to give up such discrimination against western European imports as is necessary to implement trade agreements with the eastern countries.

Spain might also find itself seriously disadvantaged if it were to remain outside the Free Trade Area. Exports to the countries of the Area account for more than half of all Spanish exports and are heavily concentrated on fruits, vegetables, fresh and canned fish, which face strong competition from production within the Area and in the overseas territories of member countries. Moreover, Spain, like any other underdeveloped country, would find its prospects of building up industrial exports adversely affected by the setting up of a new preferential area from which it was excluded.

Yugoslavia would clearly find it especially difficult to join the Area, though it is an important market for Yugoslav exports: the six Common Market countries alone took more than one-third of total exports in 1955. The Free Trade Area countries absorbed more than 50 per cent of all Yugoslav exports of meat and meat products, fruits and vegetables, more than 75 per cent of timber exports and some 40 per cent of all exports of base metals. Some at least of this trade is likely to face fiercer competition if a Free Trade Area is constituted with Yugoslavia outside, not least because the ability of the member countries to enter into bilateral trade agreements will be restricted.

East-West Trade in Europe

Trade with eastern Europe and the Soviet Union still plays a small part in the total trade of western European countries other than Finland, but it is of more importance for the eastern countries themselves (see Chart 1).

One effect of the Free Trade Area rules will be to make it more difficult for western European countries to enter into trade agreements with the countries of eastern Europe and the Soviet Union which involve any discrimination in favour of imports from these countries as compared with imports from other members of the Area.

The change in this respect is, however, probably of minor importance, since the scope for such discriminatory arrangements by western European countries has already been sharply reduced by the removal of quantitative restrictions, under the liberalization measures which they have carried out in their trade with each other in recent years. It is rather the new preferential tariff system proposed in western Europe, together with any special measures that may be taken to facilitate intra-trade in agricultural products, that is likely to have more serious consequences for the Area's trade with eastern Europe and the Soviet Union, as indeed for trade with other outside countries. The effects seem likely to be particularly important for trade in manufactures and, perhaps also in foodstuffs, and possibly less so for crude materials. Table 6 indicates the relative importance of these categories in the export trade of eastern Europe and the Soviet Union with western Europe.

Exports of manufactured goods or of agricultural products from these countries may not, of course, actually be reduced or even cease to increase, since their centralized state trading mechanisms offer them the possibility of taking special measures to surmount the new preferential barriers proposed in western Europe. This, however, does seem to imply the acceptance of a deterioration in their terms of trade, so that future gains in the volume of their exports to western Europe may be offset, at least up to a point, by losses in price. These circumstances are thus likely to add strength to the export drives which the eastern European countries and the Soviet Union have already been conducting in third markets, and to stiffen the competition which their growing manufactures offer to western European exports in these markets.

TABLE 6

Imports into western Europe from the Soviet Union and the other eastern European countries in 1955

Millions of dollars, c.i.f.

	Total	of which:			
		Food	Fuels and crude materials	Machinery and transport equipment	Other manufactures
Common market	401	75	215	13	98
United Kingdom	294	58	174	1	61
Denmark, Norway, Sweden	168	33	74	11	50
Austria, Switzerland	130	45	55	7	23
Greece, Portugal, Turkey	106	2	15	20	69
Total Free Trade Area [a]	1 120	215	541	52	312
Finland	204	43	88	26	47
Yugoslavia	33	1	19	4	9
Total western Europe	1 357	259	648	82	368

Sources: *Yearbook of International Trade Statistics, 1955,* United Nations, New York, 1956, and national trade statistics.

[a] Including Iceland and Ireland.

Effects on the Long-term Organization of World Trade

The first reaction of countries outside Europe to the Common Market and Free Trade Area proposals has been generally favourable. The President of the United States has expressed the view that they will add greatly to the economic strength and contribute to the political unification of western Europe.[25] The Canadian Prime Minister has welcomed the proposals in similar terms, on the assumption that the proposed maintenance of some preferential tariffs by the United Kingdom would be acceptable to other countries, but added an important qualification:

> " If the proposals are carried through with determination, and at the same time the countries concerned proceed forthrightly with the removal of other trade barriers between themselves, and also against other countries, as they are already pledged to do, it should be possible to surmount any difficulties which may be created and to increase the flow of trade, and maintain the ties, between this large European area and the rest of the world. On the other hand, a partial development that resulted only in the creation of a new system of intra-European tariff preferences would interfere with trade between Europe and other countries, including Canada, without achieving the positive results which are expected from a full implementing of the plan. Similarly, it would be a matter of concern to us if the pursuit of this European objective, worthy as it is, were to result in an increase in tariffs against non-European countries or in less effort or willingness to reduce the other barriers to the development of competitive multilateral trade, which is the overriding objective of the Canadian Government and of the General Agreement on Tariffs and Trade." [25a]

Generally approving statements have been made in a number of other countries, but fears have recently been expressed in some overseas countries that the proposals for agriculture may unduly limit access to the six countries of the Common Market for produce from outside the area. Anxiety lest the new preferential system may limit outlets for their increasing manufacturing capacity has been expressed in some of the less economically developed countries; and in Japan also there have been some signs of uneasiness at the prospect of more difficult access to the western European market in future. It is suggested that the export drive towards non-European markets may have to be intensified as a result.

It is clear that there is fairly widespread apprehension that the new departure in western European trading policies may represent the start of a retreat to a more protectionist attitude towards imports from the outside world, in contrast with the efforts to reduce trade restrictions and discrimination affecting imports from outside western Europe which have been pursued so far. It is, of course, true that these new developments represent a departure from the " most-favoured-nation " principle which most countries, in Europe and elsewhere, had adopted as their guide when approaching their task of dismantling the restrictions accumulated during the 'thirties and the war years. Temporary departures from this policy have been frequent in practice, largely as a result of post-war

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[25] See the President's message to Congress of 23 January 1957.

[25a] Statement by the Canadian Prime Minister as quoted in *Foreign Trade*, vol. 106, No. 12, Ottawa, December 1956.

TABLE 7

The structure of world trade
Major preferential trading areas, before and after the inception of a Free Trade Area for western Europe

Billions of dollars, f.o.b. — 1955 values

Exports to Exports from	British Common-wealth	France, Belgium-Luxembourg and their affiliated overseas territories	Eastern trading region	TOTAL of three preferential trading areas	Prospective Free Trade Area in western Europe	TOTAL of preferential trading areas after inception of Free Trade Area	All other countries	TOTAL WORLD
Major preferential trading areas:								
British Commonwealth	11.8	1.7	0.4	13.9	9.9	17.3	7.5	24.8
France, Belgium-Luxembourg, and their affiliated overseas territories	1.2	3.7	0.2	5.1	5.7	8.2	1.8	10.0
Eastern trading regions	0.6	0.2	7.5	8.3	1.3	9.0	0.5	9.5
TOTAL of three preferential trading areas	13.6	5.6	8.1	27.3	16.9	34.5	9.8	44.3
Prospective Free Trade Area in western Europe	8.8	4.9	1.0	14.7	16.9	25.6	7.3	32.9
TOTAL of major preferential trading areas after the inception of the Free Trade Area	16.8	7.8	8.8	33.4	27.3	47.2	14.0	61.2
All other countries	9.0	1.7	0.6	11.3	8.2	15.4	15.9	31.3
TOTAL WORLD	25.8	9.5	9.4	44.7	35.5	62.6	29.9	92.5

Sources and methods: See Appendix B.

dollar shortages, but the new proposals amount to the open abandonment of the most-favoured-nation principle, and the adoption of a permanent preferential system, by a very important group of trading countries.

The proportions of world trade covered or indirectly affected by existing systems of preferences and by the projected Free Trade Area are indicated by the figures in Table 7. Once the Free Trade Area comes into existence about 40 per cent of present world trade will take place within the framework of preferential arrangements,[25b] while about 25 per cent (i.e. the imports into areas which are members of preferential systems from non-members of those systems) will be subject to disadvantages as a result of these arrangements. Only one-sixth or less of world trade will be conducted amongst countries not members of one or another preferential system.

One outcome of the new initiative in western Europe may well be that other countries draw together in preferential trading areas of their own; and consideration of such a project has, in fact, already been started in Latin America. If this tendency were to develop, and if the various trading blocs were to become highly protectionist, the potential benefits of the Common Market and Free Trade Area in western Europe might be significantly reduced.

The risk that the world may become organized into a number of large protectionist preferential systems might be somewhat lessened if the original members of the Free Trade Area were to show themselves prepared to accept as additional members any countries able and willing to accept its rules. But their willingness to continue their earlier efforts to reduce barriers to trade on a worldwide basis is likely to be more important. It may well be in their own interests, as well as in those of the world as a whole, that they should show themselves willing to reduce their external tariffs and other barriers to trade with the outside world (including direct and indirect obstacles to imports of agricultural products) either unilaterally or, where appropriate, as part of negotiations designed to reduce trade barriers generally. This may well be a most important issue for a number of under-developed countries, which now fear that the immediate outlets for their agricultural exports—and the potential markets for their possible future exports of manufactured goods—may be drastically restricted.

[25b] i.e. 11.8 (less trade between Iceland, Ireland and the United Kingdom) plus 3.7 (less trade between Belgium/Luxembourg and France) plus 7.5 plus 16.9. This amounts to $38.5 billion.

5. PROBLEMS OF TRANSITION AND ADJUSTMENT

The long-term benefits which countries may expect as a result of joining the Common Market or the Free Trade Area are bound to be purchased at the expense of some—possibly quite small—short-term costs to their economies, in the form, for example, of potential output lost as a result of temporary unemployment. This applies particularly to the advantages accruing in the long run from a more efficient distribution of resources between different types of production in each country, which must by definition involve some changes in the existing industrial pattern.

The methods decided upon by the Common Market countries—and likely also to be followed by the members of the Free Trade Area—for removing tariffs and quotas on inter-member trade will tend to minimize the difficulties of carrying through any necessary adaptations of the industrial structure. The formulæ contemplated, and the period—12 to 15 years—over which barriers are to be removed, seem to provide a fairly satisfactory combination of a fixed time-table, and definite obligations for minimum reductions in over-all incidences and individual rates of duty, with a reasonable degree of flexibility permitting the pace of adjustment to be varied from industry to industry in each country. This should reduce the danger that all the immediately most difficult adjustments—and therefore those that are potentially most rewarding to the area as a whole—may be postponed till the last minute. Nevertheless, some problems of structural unemployment during the period of readaptation must be regarded as a possibility to be faced by some member countries. It is also possible that certain countries may find that the lowering of protective barriers produces increases in imports exceeding the growth of their exports, and consequent balance-of-payments difficulties.

The Views of Industrial and Workers' Organizations in Western Europe

The favourable interest expressed by western European governments in the new proposals seems generally to be supported by the reactions of articulate opinion in these countries; but this support has not been universal, and has usually been subject to qualifications which often reflect anxieties about the possible strains of the transition rather than doubts about the long-run benefits. Most trade union organizations have expressed anxiety at the prospects that some frictional and structural unemployment may appear during the transition period, and have stressed the need for effective full-employment policies designed both to maintain adequate levels of over-all demand and to deal with these special problems. Some fears have been expressed in the countries where wages are highest lest increased competition from low-wage countries, or increased labour migration, tend to depress their living standards.

Industrial organizations have tended generally to stress the need for freedom of movement for labour and capital to be increased in step with, or in advance of, the removal of tariffs, and for safeguards against dumping, export subsidies and " unfair competition " in general and against " currency manipulation ". In those countries with high levels of taxation or of social charges on industry, industrial organizations tend to emphasize the need for " harmonization " in this field.[26] Some organizations have expressed fears that unduly *dirigiste* tendencies may be encouraged by the activities of the Investment Bank; some have also deprecated any great emphasis on control of monopolies, on the grounds that a degree of concentration of European industry will be essential for maximum economic efficiency. The need for effective measures to deal with balance-of-payments difficulties has also been generally mentioned, though the stress placed on quantitative restrictions, exchange rate adjustments or internal policies as appropriate instruments has varied.

The balance of emphasis on these and other qualifications has, of course, varied from country to country. In Italy special importance is naturally attached to the need for freer movement of labour, international co-operation in dealing with unemployment problems, and international assistance for under-developed areas. In France, uneasiness about both the transition difficulties and the ultimate aims of the Common Market seems particularly widespread. The Patronat français has been critical of many of the details; the trades unions have expressed fears of west German competition and of the effects on French wage standards of any large inflow of foreign workers: insistence on harmonization of social charges on industry is stronger in France than in any other country, and the need to relieve France of some of its burdens in the overseas territories has also been widely emphasized.

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[26] See, for example, *Le projet du Marché commun européen*, supplément au bulletin No 153 du Conseil national du Patronat français, Paris, 1956; Statement on the Common Market adopted by the International Chamber of Commerce, 18 October 1956; views of the British Chamber of Commerce members as reported in the *Journal of the Birmingham Chamber of Commerce*, December 1956. Similar views were expressed in a letter of 31 October 1956 from the President of the Federation of British Industries to the President of the Board of Trade, later reported in the press.

In the United Kingdom, the general desire to maintain as much as possible of the present Imperial Preference system is a factor not present in other countries. This consideration, and the wish to retain freedom effectively to protect domestic agriculture, have led the Government to propose the exclusion of food, feeding-stuffs, drink and tobacco from the scope of the Free Trade Area. (This is further discussed below.)

In the Netherlands, considerable disappointment has been expressed at some of the changes made in the Common Market proposals in the course of the negotiations since the publication of the experts' report. There is some regret at the extent to which the " supra-national " approach has been modified. It also seems to be widely felt that too many concessions have been made to protectionist tendencies in other countries—in particular, that the common tariff on semi-manufactured goods may be so high as to raise Dutch manufacturing costs, while the harmonization of social charges on industry will have similar results, and that the proposals for dealing with the agricultural sector will deprive the Netherlands of any opportunity significantly to expand exports of food products to other countries of the Market. Some of these criticisms have also been voiced fairly widely in Belgium and in western Germany, while the proposals for agriculture are naturally the subject of criticism in Denmark. So far as industry is concerned, there is a general expectation of benefits from membership of the Free Trade Area in Denmark and Sweden, but more apprehension about the effects of intensified competition in the domestic market in Norway.

Little attempt seems yet to have been made in any country to assess the possible effects of the new schemes on the industrial structure—which would, of course, be a difficult task. In a few countries, inquiries among industrialists have provided indications of their views on whether their industries are likely to benefit or to lose by participation. It must, of course, be remembered that to industries in any single country the fear of being left outside a new and important preferential trading area must be a powerful factor in favour of association with it, whether or not a positive benefit is expected from association as such.

The results of an inquiry among industrialists in Italy [27] showed that the Common Market proposal is regarded " generally with favour " by the industries producing food and drink, textiles, clothing and shoes, wood products, hand tools, sewing machines, typewriters and precision instruments: unfavourable or varied answers came from many branches of the electrical, engineering and chemicals industries, as well as from some other light industries. A similar inquiry by the Federation of British Industries [28] showed a variety of opinions within each industrial sector, but with a clear balance in favour in most of the metal-manufacturing, engineering and constructional industries, vehicles and chemicals: the balance was still in favour in most other sectors, but with a considerable body of adverse opinion in the textiles and paper and board industries and in some others. The general balance of views was probably fairly well represented by the expression of opinion (" personal " rather than " representative ") of the members of the regional councils of the Federation, who " recognized that the readjustments involved in British industry would be great, but not so great as those which would follow the loss of much of our European markets, or the loss of the benefits of forming a part of a large free market which provided a real opportunity and challenge to British industry. Readjustments spread over 12 to 15 years would be sufficiently gradual to be surmountable."

While the opinion expressed in the last sentence quoted above is probably justified, even if applied to all the countries concerned, the widely different views on the merits and defects of the new proposals which emerge from the various statements just summarized indicate some of the stresses which may have to be withstood during the next several years if the plans are to reach full fruition.

The Lessons of Benelux and of other Experiments in Integration

The conclusions about the likely effects of the Common Market and the Free Trade Area, or the possible difficulties of the transition period, which can safely be drawn from past experience of earlier attempts at economic integration are probably fairly limited. The European Coal and Steel Community has been too restricted in scope to provide a guide to what is to be expected from a very different type of approach. Moreover, it has so far operated in a period of strongly rising demand for coal and steel, when the relocation of production need involve no actual shrinking of output in any country, but can take place painlessly through varying rates of investment in new capacity from one country to another.

Plans for a customs union of the Scandinavian countries have been under discussion since 1948. A common labour market was established in 1954, and each country accords its own social security benefits to citizens of the others who are resident in its territory. Very detailed expert studies—based on an item by item examination of the customs tariffs—have been made, including suggestions for a possible timetable for the removal of all barriers to intra-trade in each product and for the establishment of the common tariff. However, the Governments concerned have not as yet committed themselves regarding either the desirability or the methods of establishing a customs union.

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[27] See *Europa senze dogane*, Laterza, 1956.

[28] The results were reported in the letter to the President of the Board of Trade referred to in footnote 26.

The experience of forming the Benelux Customs Union has been on the whole favourable. The development has proceeded slowly over the last nine years, with the removal of quota restrictions—which, rather than tariffs, were the effective limitations on trade in the beginning—being carefully organized so as to cause a minimum of dislocation. Both tariffs and quantitative restrictions on inter-member trade in industrial products have now been substantially eliminated, though little progress has been made in establishing a common market for agricultural products. A common tariff and common liberalization lists for imports from the OEEC area and from the dollar area are in force. Steps have also recently been taken to free capital movements and to establish a common labour market, and agreement has been reached on the next stage of progress towards full Economic Union which is the ultimate objective.

These developments have not brought any dislocation to the economies of the partner countries, despite the fact that harmonization of wage systems has not been achieved [29] and that general economic and social policies are subject to " consultation " rather than " co-ordination ". The balance-of-payments problems of the Netherlands were probably somewhat accentuated in the early years, but they were overcome—with the help of general trade expansion in Europe—without serious difficulty. There seems to have been only a slight increase in labour mobility as a result of the formation of the Union, but there has been some movement of capital.

An attempt has recently been made to assess both the extent to which the expansion of intra-Benelux trade can be attributed to the formation of the Union and the degree of specialization that has been induced in the two countries.[30] The study is based primarily on an examination of imports of a sample of commodities from Belgium into the Netherlands, but the author states that a similar investigation of imports into Belgium from the Netherlands gives similar results. The conclusion drawn is that for seven commodities, accounting for about half of total Netherlands imports from Belgium and Luxembourg, a very substantial part of the increase in intra-trade could be attributed to the formation of Benelux and, as might be expected of a union of two small countries, that this had to a large extent represented a diversion of trade from other sources of supply.

It could, of course, be argued that the experience of Benelux demonstrates not the painlessness of the process of transition to a common market, but its difficulty. By not integrating the market for agricultural products, for example, short-term difficulties —in Belgium especially—may have been avoided at the cost of sacrificing some longer-run benefit from a more efficient use of resources in the two countries. It is also clear that the general strong expansion of the western European economy during most of the period has been a factor in the success of Benelux.

The Special Problem of Agriculture

For Denmark and, to a lesser extent, for the Netherlands the treatment of agriculture within any western European Free Trade Area is of vital importance. Both are low-cost producers capable of competing effectively on a free world market and, in Denmark especially, agricultural exports are an extremely important element in foreign trade. Agricultural products are also important exports from France and Italy, as well as providing the major part of the export earnings of the under-developed countries of southern Europe.

All western European countries apply more or less comprehensive policies of agricultural protection, in many cases with the aim of maintaining a level—and, even more, a rate of growth—of farm incomes more or less on a basis of parity with incomes in industry and other sectors. In part, however, protective policies are based on the desire to maintain a certain level or pattern of agricultural output either for strategic reasons or through a fear of being too dependent on food imports, even in peace time. The fact that the United States subsidizes food exports is also a consideration influencing the policies of some western European countries.

The present high levels of protection of western European agriculture are made necessary by the uneconomic size of a large share of the farms. There are very few European countries where farms at or above a size that can fully employ the family labour working with mechanized equipment account for more than a fraction of the total number of farms. To deal with the basic factors underlying the present difficulties will take time; and success will depend to some extent on developments outside agriculture, such as the rate at which alternative employment opportunities are provided for part of the rural population. But there is good reason to suppose that the existing systems of protection tend to encourage an undue self-sufficiency and a less economic level and pattern of output than might be secured, for any given level of farm incomes, by better co-ordinated and more discriminating national support policies.[31]

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[29] Although social benefits are higher in the Netherlands than in Belgium, these do not fully offset the lower level of Dutch wages.

[30] See M. M. Kristein: " The Effect of Benelux on Belgian-Dutch Trade ", *Economisch-Statistische Berichten*, 18 July 1956.

Examples of uneconomic patterns of production can be found in practically every country. Even generally low-cost producers such as Denmark and the Netherlands, which suffer from direct or indirect restrictions on imports of their pig meat and dairy products in western Germany, the United Kingdom and other countries, themselves protect some non-competitive parts of their horticultural production; fruit and vegetable growers in most countries are protected to some extent against imports of these products from the low-cost producers in southern Europe; countries such as Switzerland grow, at high cost, wheat which could more economically be produced in France, but themselves suffer from restrictions against their fully competitive exports such as cheese.

The Government of the United Kingdom has expressed the view that, since most of the countries concerned apply protective policies in the agricultural sector and do not contemplate establishing a free-trade regime for agricultural products, this sector should be completely excluded from the scope of the Free Trade Area.[32] This seems to be a counsel of despair. The opportunity might rather be taken to benefit by the new interest in economic co-operation, and to attempt to deal with the basic difficulties of western European agriculture by measures designed not only to ensure an acceptable level of farmers' incomes, but also to encourage increased productivity in agriculture and the greater inter-country specialization necessary to effect a gradual transformation of the pattern of output towards a more economic structure.

Such information as exists on the plans of the Common Market for dealing with agriculture raises some doubts as to whether the measures contemplated will have this effect. The intention appears to be gradually to eliminate tariffs on inter-member trade in agricultural products, as on trade in industrial goods, and eventually to adopt a common tariff against non-members, though plans seem to be less firmly worked out than for industry. Common marketing arrangements, fixing of minimum prices and long-term contracts have been mentioned as instruments of a " common " policy for the agricultural sector. It seems to be contemplated that, at least for some time to come, national minimum prices may be fixed for some products, as a means of maintaining agricultural output and incomes, and that they may be made effective by means of import quotas applying to inter-member trade as well as to trade with the outside world. There is clearly a possibility that co-operation in policies of this kind may tend to have, as its main result, an increase in the effective preferences granted to producers within the Common Market as compared with those outside.

To use either the fixing of minimum prices for certain products within member countries or long-term contracts at fixed prices as the main method of guaranteeing reasonable incomes to the millions of uneconomically small farms within the Common Market would probably require prices to be fixed at a level which would give unreasonably high remuneration to the efficient farmers. Moreover, the support which would be required for such measures, in the form of restrictions on imports from outside the area, might result in protection against overseas supplies becoming more intense than it is today in certain of the member countries. This, of course, does not imply that no steps can be taken towards a closer integration of European agriculture before the uneconomically small farms can be eliminated or enlarged; but it implies that the first step towards integration should consist of changes in the form of support provided to agriculture, so that these marginal producers, instead of being supported by high sales prices for their products, obtain the support in ways that either reduce their costs or support their incomes by direct subsidies.

It is clearly desirable that inside each country as much emphasis as possible should be placed on measures which directly help to increase efficiency and to reduce production costs—examples are consolidation of scattered holdings and elimination or consolidation of uneconomically small farms, conversion of land from growing chronically surplus products to more economic uses, the reinforcement of agricultural extension services, subsidies and other measures to encourage the use of fertilizers, better-quality seeds or increased mechanization. Some of these measures are already an important element in the agricultural policies of a number of western European countries, and their further extension could help to bring cost levels in agriculture in different European countries closer to each other.

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[31] For a full discussion of the problems involved, see *European Agriculture—a Statement of Problems*, ECE/FAO, Geneva, 1954.

[32] The United Kingdom memorandum to the OEEC on *A European Free Trade Area* (Cmd. 72) contains the following statement:

> " The United Kingdom and most other European countries protect their home agriculture by one means or another for well-known reasons, and will wish to continue to do so. The United Kingdom would not in the foreseeable future be prepared to remove protection in this field and to admit the free entry of foodstuffs as is intended for other products; nor would Her Majesty's Government expect other countries to take such action. Indeed it appears to be the intention of the Messina Powers to institute a regulated market for agricultural produce, rather than a free market as is proposed for industrial products. Any special arrangements for agricultural produce, if restrictive in character, might clearly give rise to difficulty in securing international agreement.
>
> " For these reasons Her Majesty's Government have throughout made clear their view that the products in question . . . must be excluded from the provisions of the Free Trade Area. Her Majesty's Government's proposal is accordingly for a European Industrial Free Trade Area defined in this sense."

In countries where the fixing of national minimum prices for certain products is used as a method of support for farm incomes or output, imports can be allowed to come in freely so long as market prices in the importing country exceed the minimum. If these methods are not to be inconsistent with a gradual transformation of European agriculture to a more economic pattern certain conditions need to be satisfied. These conditions would be (*a*) that imports were admitted on the same basis, so far as any quota restrictions were involved, from at least all participating countries (and preferably from the world in general) and (*b*) that the minimum prices were gradually reduced so long as significant restrictions either on inter-member or external trade were necessary to maintain them.

A similar but in some respects preferable method of giving a degree of support to farm incomes in general might be to fix, not minimum prices, but import quotas for several years ahead and with the amounts of imports admitted under the quotas steadily increasing year by year. Such an arrangement might, where necessary, be temporarily supplemented by a system of deficiency payments to bring actual receipts by farmers up to a level agreed to be adequate; but it could still provide a guidance to farmers in both exporting and importing countries to adapt their production in the direction desired.

Whatever method of price support and import control is adopted, the aim should be so to adjust tariff or quota protection, or the minimum domestic prices, as to bring at least the relative prices of various agricultural products closer to the price relationships in the world market. This would encourage international specialization in agricultural production, so that each country tended progressively to produce mainly those products for which it is best suited and to import the rest. In Sweden, attempts are already being made to institute a system of support which ensures that domestic prices at least follow the pattern of world market prices, even though at a higher level.[33]

The best hope of a practicable approach to a more economic pattern and level of western European agricultural output probably lies in the methods suggested above. To the extent that priority can be given to freeing trade in some products before others, it is clearly desirable in the interests of the development of the poorer regions of western Europe that special attention should be paid to the need for areas such as southern Italy, Greece, Turkey, Spain and Portugal to find markets for their agricultural exports. The provision of such markets in the more developed countries can be regarded—to some extent—as a substitute for the unilateral transfers of resources from the more prosperous to the poorer areas which will be necessary if the economic development of the latter is to be accelerated.

Exchange Rates and Balance-of-Payments Equilibrium

The problems of adjustment of the industrial structures of member countries of the Common Market and Free Trade Area which may arise have already been mentioned; and it has been suggested that these may involve the appearance of balance-of-payments difficulties—possibly accompanied by some unemployment—in certain member countries during the period of transition and adaptation to the new trading system. Such difficulties could result if the abolition of tariff barriers to inter-member trade increased the flow of imports into a particular country more than its exports. It would, in fact, be surprising if some such difficulties did not appear: in other words, it would be most remarkable if the pattern of exchange rates appropriate to the present tariff structure of western Europe proved to be appropriate also to the tariff structures of the Common Market and the Free Trade Area, even after such adjustment of relative labour costs as may result from " harmonization " measures.

In fact, as has been pointed out in Chapter III, balance-of-payments problems already exist in western Europe, of which the French deficit and the persistent west German surplus are probably the most serious. The concession by the Common Market countries permitting France to retain, for the time being, the special regime of import taxes and reimbursement of fiscal charges and taxes on exports is clearly intended to postpone any need for adjusting the exchange value of the franc for some time, during which it may be hoped that other corrective measures will ease French balance-of-payments problems. The continuation unchanged of the present export subsidy/import tax system will not in itself contribute significantly to the solution of these problems. It has been suggested in Chapter III that a more discriminating use of these measures could help to deal with the immediate strains on the French balance of payments; but in the longer run it is desirable that the import tax should be gradually changed to a flat rate *ad valorem* tax on all imported goods and services and the export subsidy measures gradually transformed into flat rate ad valorem subsidies, equal in incidence to the import tax and applying to all exports of goods and services.

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[33] In September 1956 a system came into operation which fixed for each major product a range within which domestic prices would be free to move. For each product an import levy was fixed equal, with few exceptions, to about 25 per cent of the import price then ruling and also equal to the difference between the mid-point and the limit of the fixed range for internal prices. When domestic prices threaten to fall below the lower limit of the price range import controls may come into operation, and corrective measures may also be taken if they threaten to exceed the upper limit.

The agreement reached among the members of the Common Market for some " harmonization " of social charges on industry is presumably intended both to reduce the need for other measures to adjust disparities in relative price levels during the transition period, as well as to remove sources of longer-term distortion of the perfect competitive system. The measures which have been agreed may in fact have the effect of easing, or at least preventing any intensification during the transition period, of the strains on balances of payments which are already a threat to the general stability of the western European economy; but otherwise the economic case for a continuous harmonization of policies of this kind as a permanent feature of the Common Market or the Free Trade Area, is more limited than is sometimes assumed.

There are, of course, valid arguments in favour of some harmonization of social policies (for example, a closer approach to equality of provisions for sickness and unemployment benefits and for pension rights) in the interests of labour mobility. But the arguments most commonly advanced in favour of harmonization of social security charges on industry (including standardization of paid holidays and of normal working weeks and overtime supplements to normal wage rates, general acceptance of equal pay for men and women, etc.) suggest, *inter alia*, that differences in wage costs between countries attributable to these factors could interfere with the establishment of conditions of perfect competition within the Common Market. In fact, it is only when disparities exist in the incidence of charges of this kind (or other forms of internal taxation) on the costs of different industries *within* a country, and when these same inter-industry disparities do not exist elsewhere, that some harmonization may be desirable as a means of eliminating significant distortions of competitive conditions. Internal charges which affect general factor cost levels, rather than the relative costs of the same factors to different industries in each country, can be satisfactorily compensated by the fixing of appropriate exchange rates. There is no apparent reason why if one country chooses, for reasons of social policy, to raise labour costs by a flat rate tax on employment (e.g., in the form of a certain level of social security contribution by employers) another country should be obliged to do the same, while a similar change in labour costs—in one country relatively to another —brought about by divergent movements of productivity should be compensated, to the extent that this is necessary, by exchange rate adjustments.[34]

In the longer run, one of the effects of the Free Trade Area will be to increase the interdependence of the economies of member countries and possibly, in at least some cases, to increase the total share of international trade in their economies. In these circumstances, there clearly needs to be close consultation on the development of economic trends in the various countries and on their individual economic policies. It will be particularly important to ensure that such balance-of-payments difficulties as do occur during the transition period, despite the best efforts of all countries to pursue policies to expand output steadily and without inflation, should be cured by means which do not prevent a continuing expansion of over-all output in each country. In a period when some countries may be facing structural employment problems directly linked with an adverse change in their balances of payments, any tendency to force them to correct such deficits by deflationary measures could set up unbearable strains.

The negotiations seem already to have brought agreement that, in the event of balance-of-payments difficulties occurring during the transition period, member countries of either the Common Market or the Free Trade Area can temporarily reimpose quantitative restrictions on imports from other members as well as on imports from the outside world. It is not yet clear whether or not a similar recourse is to be available after the end of the transition period, but some such leeway would be reasonable. A resort to import restriction for strictly limited periods would scarcely reduce to any significant extent the potential benefits to be gained from the freeing of inter-member trade from all restrictions; no thoroughly uneconomic industry in any country is going to be set up, or to be preserved, as a result of the spasmodic and unpredictable protection given by occasional imposition of quotas in times of balance-of-payments difficulties.

Recourse to import restrictions would, however, need to be sharply limited in time and scale, provided that the alternative is not the adoption of still less desirable measures of deflation or of excessive exchange fluctuation. It may be doubted whether the reserves and credit facilities at present available to western European countries are adequate to cushion the fluctuations which may be produced during the period of adaptation to the new tariff structures. Arrangements might therefore be considered to ensure that facilities of this kind are available readily and on a sufficient scale, so that no country need be forced into premature resort to restrictive measures. Given the special factors affecting trade in the transitional period, a rapid and correct diagnosis of the causes of difficulties and of their appropriate cures may not always be easy.

The OEEC Working Party points out that " temporary derogations from the rules cannot in themselves constitute a remedy for difficulties; they merely provide a form of transitory protection under cover of which the country in question must, with the help of its partners in appropriate cases, make the necessary adjustments to enable it again fully to carry out the common obligations ".[35]

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[34] The main considerations to be borne in mind in this context are discussed in the report by a group of experts to the International Labour Organisation—*Social Aspects of European Economic Co-operation*, Geneva, 1956, Chapters III and IV.

Some of the help to be provided would doubtless take the form of short-term credit. In dealing with a fundamental lack of balance in international payments, however, surplus countries as well as deficit countries may have to be prepared to contribute, as appropriate, to any necessary adjustment of relative exchange rates. Whether or not any formal rules to this effect are established, either by the countries of the Common Market or by those of the Free Trade Area, some understanding seems to be required that persistent deficit countries will be willing to deflate if excess demand appears to be responsible for their deficits, or to devalue if their troubles appear to be due to cost inflation, and that persistent surplus countries will be equally willing at least to keep up a steady rate of economic expansion and also to make some contribution to necessary exchange rate adjustments.

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[35] OEEC Working Party report, *op. cit.* p. 15.

PART II

EUROPEAN TRANSPORT PROBLEMS

Chapter 5

COSTS AND EFFICIENCY OF RAIL AND ROAD TRANSPORT

1. Structural Changes in Transport

Owing to its early industrialization and its high population density, most of Europe is equipped with an intricately developed railway network. Moreover, many of its cities and industrial regions are served by internal waterways or by coastal and ocean shipping.

In other continents the newer means of transport are generally welcome supplements to insufficiently developed rail and water transport systems, permitting the improvement of facilities with much smaller investments than would otherwise be required. In Europe, by contrast, the development of road and air transport is not always hailed as an unmixed blessing. Sometimes these services are regarded as undesirable luxuries requiring big new investments while undermining the financial position of the traditional means of transport and the economic advantages of the well-established railway tariff pattern. Certainly the coordination of the new and the old in the most economic manner presents complex issues.

The problem is, however, of still more fundamental importance. The state of development of transport networks and facilities and the structure and level of transport tariffs are more than a matter of convenience for the population and a significant element in production costs. These factors also exert important influences on the location of economic activities and thereby influence the relative degree of concentration or spread of the population over the territory. Transport policy thus cannot avoid having a major influence, whether consciously exercised or not, on the future life and culture of the whole population.

The places where people live and work in Europe have been largely determined by developments in the nineteenth century, when railways, rivers and canals were almost the sole carriers of goods and passengers in inland transport, and when modern telecommunications did not exist. At that time, the big towns where several important railway lines met and personal communication between business men was easy provided by far the most favourable locations for large-scale undertakings, especially when serviced also by maritime or inland water transport. Other factors, such as access to skilled labour and interdependence of industries, also worked in favour of concentration. The establishment of industry and commerce in these towns drew population to them, and the higher level of activity and widening markets attracted, in turn, still more industries and commercial firms in a cumulative process of concentration of population and economic activity.

More recent developments in transport and communications have made the concentration of economic activity in a few large towns less necessary. Modern telecommunications and motor vehicles facilitate personal contacts between business men, and road motor traffic makes the location of enterprises and population less dependent on railway or waterway facilities. A road transport system is more adaptable than the railways to varying degrees of traffic density: this flexibility is derived from the smaller size of transport units, and from the ramification of the network, as well as from the quality and capacity of the roads and the size of terminal stations. A road transport system can thus be spread evenly over the territory of a country at relatively small cost as compared with that of providing equivalent rail facilities. In fact, the whole of north-western Europe has already reached the stage where nearly every corner of the territory is accessible to lorries and passenger cars on all-weather roads.

The development of new means of transport and communications has changed, and will continue to change, the general way of life, and has thereby influenced what has been called the psychic income associated with living in different localities. Hitherto, particular parts of any territory—often the least attractive ones—offered such compelling economic advantages that non-economic factors had to be disregarded in the choice of location. This will remain true for very heavy industries such as steel-making and a few others. But for the great majority of industrial as well as commercial undertakings, even though operating on a large scale, the purely economic advantages of the old centres will be reduced so that there will be a greater inclination to take into consideration the social and personal disadvantages of excessive concentration.

Moreover, the immense difficulties in the way of utilizing the new means of conveyance in areas already densely built up provide a strong economic incentive to decentralization. Practical and economic as they are in more thinly populated areas, the efficiency of motor-cars and lorries is greatly reduced in big, overcrowded agglomerations. The rapid increase in recent years in the number of passenger cars in western Europe has given these problems of urban congestion a prominent place in discussions about investment needs. The big cities in western Europe have no choice but to make huge investments both in the centres and in the access ways to them, unless the use of private cars in the main business quarters were to be practically prohibited. At the same time, great difficulties have arisen in providing adequate road transport facilities near and between the big centres, as commercial and private traffic has become too dense to be carried smoothly on roads of the usual type. Furthermore, the development of inter-city air traffic is severely handicapped at present because the time saved in the air tends to be offset by the time lost in commuting to and from the airports.

In the United States, where road transport is much more developed, the decentralizing influence of the automobile age has already begun to make itself felt. There is a clear tendency for large-scale industries to move away from the big towns and to set up in less congested regions, and a tendency for large firms to break up their production into several independent branches or stages, often located far from each other. Extensive shopping facilities have also been built up in suburban areas where space is available for parking motor vehicles.

The following discussion is centred on the problems connected with the rapid rise of goods transport by road, in particular, and the difficulties of co-ordinating road and rail transport of merchandise. It is necessary to emphasize, however, that the problems of passenger transport and urban congestion are at least equally important. All decisions about goods transport, therefore, need to be judged in the light of their effects in enhancing either centrifugal or centripetal forces. Since concentration of industry necessarily implies concentration of population, the problems posed by passenger transport and by the further economic and non-economic effects of such concentration must necessarily be taken into account when policies for goods transport are laid down.

This does not mean that present and future transport problems of, say, Paris, London and Moscow can be solved simply by policies designed to induce industries to move to other regions in the country. Where concentration has gone as far as it has in these cities, no alternative exists to costly investments to make room for the movement and parking of motor vehicles. But through a policy of economic decentralization it should be possible at least to reduce industrial employment in these places to such an extent that further population growth can be avoided despite the expansion of service activities which is bound to accompany rising living standards. It is important that at least this modest goal should be reached; otherwise the additional costly investments now required will have to be followed eventually by further expensive changes to provide for the traffic needs of an increasing population. Moreover, a transport policy aimed at industrial decentralization may prevent other towns from growing to the point at which the problem of traffic congestion becomes intractable.

The less industrialized countries of eastern and southern Europe should be able to exercise a wider choice in the location of new industries than the highly developed countries, where most industrial investments are made by existing industrial establishments. By relying at an early stage of their development on the opportunities offered by the new means of transport for opening up hitherto under-developed regions, these countries have the possibility of avoiding over-investment in railway lines and the evils of excessive concentration which, in western Europe, were the necessary concomitants of its earlier industrialization in the railway age. It is thus particularly urgent in eastern and southern Europe to define a long-term transport policy which co-ordinates investments in road, rail and waterways so as to promote, in conjunction with other policies, a desirable geographical pattern of industry.

Contrasting Patterns in Eastern and Western Europe

Over the last quarter of a century the total volume of goods transport in Europe (in terms of ton-kilometres) by all means of inland transport has increased about three and a half times (Table 1). As could be expected, the rate of growth has varied widely between regions and between different means of transport. The largest increase has been in the USSR, where the volume of inland goods transport grew sixfold between 1930 and 1954, and reached a total almost twice as great as in the rest of Europe combined. This growth reflected the rapid expansion of commodity output—particularly heavy goods—the spread of economic activity to the vast eastern regions of the country and other factors such as the wide geographic dispersal of coal and iron ore deposits. By contrast, the volume of goods transport in France, western Germany and the United Kingdom, which were the major industrialized countries in Europe in 1930, expanded relatively slowly, the increase amounting to about two-thirds of the total volume in 1930. In these countries the volume of transport of industrial goods increased less than industrial output,

TABLE 1

Pattern of inland transport in Europe

	Goods Transport								Passenger Transport			
	Rail	Road	Water [a]	Total	Rail	Road	Water [a]	Total	Rail	Buses	Passenger cars [b]	Total
	Billions of ton-km. in 1954				*Percentage share of total traffic in 1954*							
United Kingdom, France and western Germany	121	80	34	235	52	34	14	100	25	15	60	100
Other western and southern Europe	68	50	20	138	49	36	15	100	40	15	45	100
Eastern Europe	126	7	7	140	90	5	5	100	85	15		100
Soviet Union	857	38	62	957	90	4	6	100				
Total	1 172	175	123	1 470	80	12	8	100	45	15	40	100
	Index numbers—1930=1				*Percentage share of total traffic in 1930*				*Index numbers—1930=1*			
United Kingdom, France and western Germany	1.2	5–6	1.4	1.7	75	10	15	100	1.1	1.5–2.0	3.5–4.0	2.0
Other western and southern Europe	1.5	10–12	1.1	2.0	70	5	25	100	2.2	2.5–3.0	6.0–6.5	3.0
Eastern Europe	2.5	7–8	1.1	2.4	89	1	10	100	3.0	5.0–6.0		3.3
Soviet Union	6.8	over 100	1.9	6.0	80	–	20	100				
Total	3.6	8–9	1.5	3.5	75	5	20	100	1.9	2.0–2.5	4.5–5.0	2.5

NOTE. — Traffic by air and by animal-drawn vehicles is excluded from the figures for total transport. Most of the figures for road transport in the table are crude estimates, particularly those for passenger transport. The estimates of passenger travel exclude urban travel as far as possible. The estimates are based on the assumption of an average annual performance per vehicle of 20,000 passenger-kilometres for passenger cars in 1954 and 15,000 passenger-kilometres in 1930, and for all types of motor-cycles 7,000 passenger-kilometres in both years. For further details, see Appendix B.

[a] Excluding coastal shipping.

[b] Including motor-cycles.

because an increasing share of output consisted of goods which were highly elaborated and therefore valuable in relation to their weight. In the rest of Europe the rate of expansion in the volume of inland transport of goods was somewhat more rapid than in the major western European countries, but much less rapid than in the Soviet Union.

The differences in the extent to which various means of transport shared in the increase in the total volume of inland transport of goods were very pronounced. Over 90 per cent of the big rise in the volume of goods transport in the Soviet Union and eastern Europe was borne by the railways, while in western Europe lorries have accounted for two-thirds of the addition to freight traffic since 1930. Thus, in the east, the old pattern of transport in which railways were the predominant carriers was maintained, while in the west the railways accounted by 1954 for only half, and road transport for more than one-third, of total inland transport of goods.

Table 1 is based on very inadequate data, particularly for passenger transport. But it is at least clear that the changes in the pattern were broadly similar to those in freight transport. Road transport accounts for nearly the whole of the increase in passenger transport in many western European countries, while in the Soviet Union and eastern Europe transport by rail increased at nearly the same rate as total passenger transport. Cars and buses together now account for a much larger share of passenger travel in western Europe than the railways, while in the east railways remain the main carrier for the transport of passengers as well as for the transport of goods.

As a result of these divergent changes, western and eastern European governments are now faced with pointedly different transport problems. In the east, the railways are under very severe strain owing to the emphasis on the development of heavy industries, together with the lagging behind of water transport and the small importance assigned to road transport of which the insufficient development of the road network is one manifestation. In the following sections, particular attention will therefore be devoted to the manner in which the heavy demands on rail transport in the eastern European countries have been met.

In western Europe the established traffic pattern has been altered. Railways in most countries have had to face widespread competition from road transport, which affected particularly high-revenue traffic. The following analysis, as far as it relates to western Europe, is largely concerned with the manner in which this adjustment has proceeded.

The Role of Long-distance Road Transport

Since the 'thirties, the problem of competition between rail and road has been keenly discussed; but, for lack of basic information, the discussion has usually remained on a general level. Even such data as the volume of transport, which have been available for railways over a number of years, have been lacking for road transport. This was natural as long as road transport was a newcomer; but even now reasonably detailed information on road transport in western Europe is limited to a few countries and consists of sample surveys usually covering only one week. Extrapolations of the results of the sample surveys are shown in Table 2, together with national estimates for a number of eastern European countries and for the Soviet Union.

The table suggests that in Italy and Denmark approximately two-thirds of the total volume of inland transport of goods (measured in ton-kilometres) is carried by road. This proportion is nearly 40 per cent in the United Kingdom, and varies from one-fourth to one-third in the other western countries. In eastern Europe, the Soviet Union, Yugoslavia and Turkey, on the other hand, road transport is still in its infancy.

TABLE 2

Estimated volume of goods transport by road in 1954

Country [a]	Ton-kilometres			Average haul in km.
	Billions of ton-km.	Percentage of total inland transport	Ton-km. per inhabitant	
Italy	26.7	67	560	88
Denmark [b]	2.6	64 [c]	600	20
United Kingdom [b] [d] .	33.2	38 [c]	670	34
France	21.5	31	500	25
Western Germany [b] .	25.2	27	510	38
Norway	0.8	27 [c]	240	10
Finland [b]	1.5	27	360	19
Sweden	4.0	25 [c]	555	16
Eastern Germany . . .	2.9	11	160	19
Hungary	0.8	8	85	15
Bulgaria	0.2	6	31	28
Soviet Union	37.5	4	195	11
Czechoslovakia [e] . . .	1.0	3	75	14
Poland	1.2	2	45	18

Sources and methods : See Appendix B.

[a] In descending order of road transport as a share of total transport.

[b] Estimate based on the most recent sample surveys available.

[c] Total inland transport includes estimates for coastal shipping.

[d] Excluding Northern Ireland.

[e] State road transport corporations only.

In western Europe about half the volume of goods transport by road is carried by enterprises specializing in the provision of transport services, while the other half is transport on own account (52 per cent in France, 55 per cent in the United Kingdom and 48 per cent in western Germany). In terms of tons loaded, local and short-distance traffic is the major part of road transport,[1] and particularly of traffic on own account. This has created the impression that road transport is inherently a carrier for short distances. The data available for medium and long-distance road transport of goods in the United Kingdom, western Germany, France and Italy indicate, however, that this impression is far from reality.

	Medium- and long-distance road transport [a]			*Transpor by heavy lorries [b]*
	United Kingdom [c]	*France*	*Western Germany*	*Italy*
	1952	*1954*	*1954*	*1954*
Volume in billions of ton-km	13	13	13	18
Volume as percentage of total road transport . .	42	59	52	65
Volume as percentage of total rail transport . . .	35	32	30	136
Average haul in kilometres	134	127	232	137
	Average railway haul			
In kilometres (all distances)	126	246	189	263

Sources : See Appendix B.

[a] All traffic with a haul exceeding 49 km. in France and 40 miles in the United Kingdom; and, in western Germany, all traffic beyond a distance of 50 km. from the place where the vehicle is stationed.

[b] All transport (including short-distance transport) by lorries with a carrying capacity of over 5 tons.

[c] Excluding Northern Ireland.

The comparison is made somewhat difficult by the lack of a uniform definition of long-distance road transport in these countries. From the information available on the average haul of medium and long-distance road transport, which in the United Kingdom and western Germany is higher than the average haul for the railways over all distances, it is clear that road transport has become a very important carrier for long-distance transport. The information about the volume of, and the average haul for, transport by heavy lorries in Italy seems to indicate that medium and long-distance goods transport by road is of still greater importance in this country.

While fairly comprehensive data on the nature of commodities carried by rail or by inland waterway transport are available, such information concerning road transport is relatively scarce, particularly with regard to goods transported over medium or long distances. Moreover, such data as are available do not distinguish between goods carried by one means of transport only and goods carried successively by two or more means of transport. Tables 3 to 5 show, however, that road transport and rail transport cater for rather different groups of commodities.

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[1] 90 per cent in western Germany, 89 per cent in the United Kingdom and 87 per cent in France.

Heavy products usually carried in bulk—fuel, ores, metals and building materials—dominate completely in rail transport, where they account for between 60 and 90 per cent of total traffic in nearly all countries. A large amount of building materials passes, nevertheless, by road: in France, for instance, the number of tons loaded for transport by road (even excluding short hauls) is much larger than that transported by rail. None of the other heavy products, apart from iron ore, is wholly absent from long-distance road transport; in the United Kingdom and western Germany the amount of coal carried by road in competition with the railways (e.g., from mines to users which have railway sidings) is far from negligible. However, in all countries the share of lighter goods, particularly food and agricultural products, is much larger in road than in rail transport. Building materials and food and agricultural products taken together seem usually to account for from half to two-thirds of all transport by road.

The predominance of building materials and food and agricultural products in road transport even over long distances is due to the specific transport service needed for these commodities. The origin and especially the destination of building materials are rarely at railway sidings, and road transport offers the opportunity of avoiding costly trans-shipments. In the case of food and agricultural products, wastage and deterioration in trans-shipments and other delays can be avoided by using road transport. For many other highly valued or breakable goods also the speed and the economy achieved by avoiding trans-shipments give lorries a marked advantage over the railways—an advantage further increased by the fact that railway rates, when based on the *ad valorem* system, are particularly high for such goods in relation to their weight.

Changes in Transport by Rail

Where major inland waterways or possibilities for coastal shipping exist, they are, and have always been, a much cheaper carrier of the bulky products—fuel, ores and building materials—than are the railways. In those parts of Europe which are well equipped with waterways, railways therefore tend to be squeezed between two competitors: inland waterways carry a very large share of the bulky products, while road transport is a fierce competitor for the other commodity groups, particularly where door-to-door transport without trans-shipment is advantageous.

The differences in commodity composition can largely explain why road transport has become more

TABLE 3

Commodity composition of road transport

Each commodity group as a percentage of total transport by road

			Fuel	Metals and metal products	Building materials including timber	Food and agricultural products	Chemicals and fertilizers	Paper and pulp	Other products	Total
Transport over all distances										
France	ton-km.	1952 . . .	10	4	22	35	4	1	24	100
Switzerland . . .	ton-km.	1951 [a]. . .	. .	7 [b]	43	27	8	1	14	100
Denmark	tons	1953 . . .	6	2 [b]	40	26	2	1	23	100
Bulgaria	tons	1954 . . .	20	3 [b]	46	9	. .	. .	22	100
Medium- and long-distance transport [c]										
France	tons	1954 . . .	4	5	30	35	3	. .	23	100
Western Germany	ton-km.	1954 . . .	5	18	31	21	4	4	17	100
Long-distance transport [d]										
France	ton-km.	1954 . . .	1 [e]	. .	12	14 [f]	. .	. .	73	100
Switzerland . . .	ton-km.	1951 [a]. . .	. .	10 [b]	17	42	15	1	15	100
Norway	ton-km.	1954 . . .	3 [e]	13 [g]	34	22	. .	. .	28	100

Sources: See Appendix B.

[a] For June only.

[b] Excluding metal products.

[c] In France, all traffic with a haul exceeding 49 km.; in western Germany, all traffic beyond a distance of 50 km. from the place where the vehicle is stationed.

[d] All traffic with a haul of 150 km. and over.

[e] Coal only.

[f] Wines, spirits, groceries and general provisions.

[g] Including all minerals.

TABLE 4

Commodity composition of railway transport in 1954

Each commodity group as a percentage of total transport by rail

Figures in italics are based on ton-kilometres, others on tonnages loaded

Country [a]	Fuel	Ores and metals [b]	Building materials including timber	Total of groups 1-3		Food and agricultural products	Chemicals including fertilizers	Other products
	1	2	3	Tons loaded	Ton-km.	4	5	6
Belgium [c]	*35*	*39*	*15*	90	*89*	*4*	*6*	*1*
United Kingdom [d]	*47* [e]	*23* [f]	. .	83	*70*	. .	. .	. .
Soviet Union	*38*	*13*	*20*	76	*71*	*6*	. .	*23*
Poland	*44*	*8*	*21*	76	*73*	*3*	*2* [g]	*22*
Western Germany	47	17	11	75	. .	6	8	11
Yugoslavia	*31*	*12*	*22*	75	*65*	*9*	. .	*26*
Netherlands	58	5	8	71	. .	12	3 [g]	14
France	*26*	*23*	*12*	70	*61*	*16*	*7* [g]	*16*
Sweden [c]	*7*	*36*	*18*	69	*61*	*10*	*5*	*24* [h]
Bulgaria	*38*	*8*	*18*	69	*64*	*16*	*1*	*19*
Finland	6	9	38	53	. .	15	6	26 [h]
Austria	25	10	15	50	. .	5	4 [g]	41
Denmark	10	2	15	27	. .	24	8	41

Sources: See Appendix B.

[a] In descending order of total for groups 1-3.

[b] Metal products for Belgium, Poland, Yugoslavia, the Netherlands, France, Finland and Austria included in group 2; for other countries in group 6.

[c] Excluding less than wagon-load traffic.

[d] Excluding Northern Ireland.

[e] Excluding oil.

[f] All minerals.

[g] Fertilizers only.

[h] Of which paper and pulp for Sweden *11*; for Finland 13.

TABLE 5

Commodity composition of inland transport in France and Western Germany in 1954

Percentages

Tonnages loaded of all commodities = 100

Commodity group	FRANCE				WESTERN GERMANY			
	Road [a]	Rail	Water	Total	Road [a]	Rail	Water	Total
Fuel, excluding fuelwood	1	16	6	23	1	28	10	39
Ores, metals and metal products	2	15	1	18	2	10	5	17
Building materials, including timber	9	6	6	21	5	7	6	18
Food and agricultural products	11	5	2	18	3	4	1	8
Chemicals and fertilizers [b]	1	3	—	4	1	4	2	7
Other products	7	8	1	16	2	7	2	11
Total (tons loaded)	31	53	16	100	14	60	26	100
Total (ton-kilometres)	20	67	13	100	16	53	31	100

Sources: See Appendix B.

NOTE. — Total of tons loaded contains some duplication due to trans-shipments between various means of transport.

[a] Medium- and long-distance transport only.

[b] For France, fertilizers only.

TABLE 6

Changes in goods transport by rail and inland waterways, 1930 to 1954

Country[a]	1930 to 1950			1950 to 1954			1954	
	Tons loaded	Average haul	Ton-km	Tons loaded	Average haul	Ton-km	Tons loaded per inhabitant	Average haul in km
	Percentage increase						Number	
	Railways							
Turkey	306	38	463	49	2	52	0.5	349
Soviet Union	294	21	377	36	8	42	5.8	757
Bulgaria	259	11	299	63	−9	49	3.1	168
Yugoslavia	181	6	199	−5	1	−4	2.3	225
Poland	117	−12	91	56	−12	37	8.3	217
Rumania	87	19	121	58	..	..	3.0	..
Finland	65	30	114	13	6	20	4.3	229
Sweden	37	49	103	−2	9	7	5.6	230
Hungary	33	43	92	55	−2	50	6.5	129
Ireland	21	..	..	−15	4	−11	1.2	118
Austria	18	24	47	14	−6	5	6.0	147
Norway[b]	16	58	85	5	−7	−2	4.0	96
Denmark	−1	73	71	−12	13	—	1.6	172
Spain	..	..	..	9	−4	5	0.9	263
Portugal	..	..	..	12	17	32	0.4	187
Czechoslovakia	..	..	..	72[c]	16[c]	44[c]	9.2	222
Eastern Germany	..	..	..	49	3	54	10.6	121
Switzerland	−3	4	1	18	10	29	4.7	125
Western Germany	−6	38	30	14	−2	12	4.7	189
Netherlands	−7	..	..	18	−6	12	2.4	142
United Kingdom[d]	−9	36	24	2	−2	—	6.2	117
Italy	−26	27	−7	20	−3	18	1.0	263
Greece	−31	33	−9	67	42	137	0.2	179
Luxembourg	..	..	−18	15	2	17	48.0	34
France	−34	40	−7	12	−4	7	3.9	246
Belgium	−36	−1	−37	2	2	4	7.1	92
	Inland waterways							
Soviet Union	45	−6	36	40	−2	37	0.7	487
Yugoslavia	36	−19	11	11	37	52	0.3	337
Poland	120[e]	..	..	336	−63	60	0.2	118
Hungary	..	..	..	64	3	68	0.2	503
Austria	−36	..	..	79	41	151	0.4	169
Czechoslovakia	..	..	..	122[c]	−10[c]	100[c]	0.2	600
Eastern Germany	..	..	..	16	−5	10	0.6	150
Western Germany	..	..	1	52	−2	50	2.2	229
Netherlands	..	..	..	25	6	32	9.1	139
France	−20	16	−7	24	−1	23	1.2	157
Belgium	..	..	24	41	−3	37	5.8	81

Sources: International Railway Statistics, Paris, and national statistics.

NOTE. — Figures for 1930 relate to pre-war territory, except for the Soviet Union where they include the Baltic States. Private railway systems are included where important, except for Greece and Spain where the figures relate to national railway systems only. When the data cover more than one railway system in a country, an estimate is made of tons loaded to exclude duplication. In all cases the length of haul refers to distances covered within the territory of the country, except for Czechoslovakia and Hungary, where the figures for inland waterways refer to Czechoslovak and Hungarian companies respectively.

[a] Arranged as far as possible according to the changes in tonnages loaded from 1930 to 1950.

[b] The relatively high tonnage per inhabitant and the relatively low average length of haul are due to the heavy iron-ore traffic (transit of Swedish iron ore for shipment to Narvik) over the Ofoten railway (42 km. in Norwegian territory). The exclusion of this traffic, which amounted to 8.3 million tons in 1954, would reduce the tons per inhabitant to 1.5 and raise the average length of haul to 202 km.

[c] Changes from 1948 to 1954.

[d] Excluding Northern Ireland.

[e] 1931 to 1950.

important than rail transport in countries such as Denmark and Italy, where coal, ores and metals are produced in small or insignificant quantities. They also help to explain the changes between 1930 and 1954 in the volume of total goods transport carried by rail in various European countries.

From 1930 to 1954 the volume of freight loaded on railways increased very sharply in the Soviet Union, the eastern European countries, Turkey, Yugoslavia and some of the Scandinavian countries (Table 6). In all these countries there was a rapid rise in the output of basic commodities, an increasing urbanization and a geographical spread of economic activities—all reflected in the opening up of new centres and in the expansion of the railway network. In most of these countries, moreover, the share of roads and waterways in total transport remained relatively small.

In all the highly industrialized western European countries, and in some southern European countries, the tonnages loaded on railways in 1950 were lower than they had been in 1930. This was due partly to the small expansion between those two years in the output of coal and ores, which dominate in rail transport, and partly to the transfer of short-distance traffic from rail to road. As a result the average haul of railway transport became much longer, and the volume of traffic in terms of ton-kilometres increased in some countries and in others fell much less than the tonnage loaded on railways.

By contrast, railway transport both in tonnages loaded and in ton-kilometres reached much higher levels in 1954 than in 1950 in all the countries belonging to the European Coal and Steel Community. This, however, reflected partly the big increase in steel production in that period and partly the opening in 1953 of the common market in coal, steel and steel-making raw materials. The lifting of trade restrictions for these products had a still greater influence on the volume of transport by inland water.

2. Main Features of Investment Policy

It has been shown in the previous section that the emergence of road transport as a major carrier of goods and passengers has altered the older pattern of transport in western and southern European countries, while in eastern Europe and the Soviet Union the volume of railway transport has continued to increase rapidly. The manner in which these changes are reflected in current investment policy is now to be examined.

Broadly speaking, the share of gross national product devoted to gross investment in transport and communications in recent years has been about 5 per cent in western European countries, if all purchases of passenger cars are included, and about 3½ per cent if they are all excluded.[2] In western Europe, the Scandinavian countries and the Netherlands had the highest, and the United Kingdom the lowest, level of investment in transport (Table 7). Investment was also low in the southern European countries, apart from Yugoslavia.

The statistical gaps as well as the conceptual differences in the definitions of income and investment make it somewhat difficult to compare levels of transport investment in western and eastern European countries.[3] Nevertheless, it may be suggested that in most of eastern Europe gross investment in transport and communications is at roughly the same level in relation to national product as in southern Europe and lower than in most of western Europe.

The level of transport investment in the east reflects to a large extent the low priority given to road transport. In eastern Europe and the Soviet Union investment in road transport appears to be insignificant, so far as can be judged from the very scanty information —mostly in physical terms—that is available. By contrast, in western European countries investment in road transport amounts to three to ten times that in railways, if passenger cars are included, and remains much larger even when they are excluded.

Railway investment, on the other hand, seems to be higher as a share of national product in eastern Europe and the Soviet Union than in most other European countries. A similar pattern is found in Yugoslavia, which over the last six years has invested in railways more than 3 per cent of its gross national product and 60 per cent of its total transport investment. In the Soviet Union nearly 60 per cent of total investment in transport and communications is accounted for by railways, while this proportion was

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[2] Gross investment covers new investment and renewals, but not repairs and maintenance. In most national accounting systems, only expenditure on the purchase of passenger cars on business account is included in the totals for gross fixed investment. However, for the purpose of this study, it was found more convenient to include all purchases of passenger cars (motorcycles, on the other hand, are excluded). In most European countries, passenger cars are an important means of travel, accounting for a greater volume of passenger transport than do the railways. To exclude a large part of them in an analysis of transport problems would distort the picture of investment in transport. Besides, the criteria for distinguishing between cars for business and those for private use vary from country to country.

[3] For a discussion of the conceptual problems, see *Economic Survey of Europe in 1955*, pp. 198–200. See also note to Table 7.

TABLE 7

Gross fixed investment in transport and communications by main sectors

Country [a]	Period	Railways	Road transport including passenger cars [b]	Sea-going ships	Other transport and communications	Total transport and communications: Including passenger cars	Total transport and communications: Excluding passenger cars	Total transport and communications: Including passenger cars
		Gross investment as a percentage of:						
		Gross national product						Total gross investment
Norway	1952 to 1954	0.9	2.6	4.9	0.9	9.3	8.4	31
Sweden	1950 to 1952	0.5	..	..	..	..	..	..
	1953 to 1955	0.7	4.3	1.0	1.0	7.0	4.6	32
Luxembourg	1950 to 1952	1.1	2.9	—	0.5	4.6	3.3	23
	1953 to 1955	1.4	3.7	—	1.5	6.6	5.0	28
Netherlands	1954 to 1955	0.7 [c]	3.3	1.2	1.1	6.3	4.9	28
Finland	1953 to 1955	1.0	3.6	0.6	0.6	5.8	5.1	23
Yugoslavia	1952 to 1953	3.2	0.9	0.6	0.5	5.2	..	17
	1954 to 1955	3.2	1.0	0.9	0.5	5.6	..	17
Denmark	1950 to 1952	0.3	1.7	0.6	0.8	3.4	2.9	19
	1953 to 1955	0.3	3.4	1.0	0.7	5.4	3.5	28
Ireland	1950 to 1952	0.6	3.2	0.1	0.6 [d]	4.4	3.0	..
	1953 to 1954	0.7	3.7	0.2	0.6 [d]	5.2	3.6	..
Austria	1950 to 1952	1.2	1.8	—	0.4 [d]	3.4	3.0	17
	1953 to 1955	1.3	3.2	—	0.6 [d]	5.1	3.9	22
Western Germany	1953 to 1955	0.7	2.8	..	..	..	..	..
Belgium	1950 to 1952	0.8	2.7	0.1	1.2	4.8	3.4	31
	1953 to 1955	0.9	2.9	0.2	1.0	5.0	3.2	30
France	1952 to 1954	1.1	2.8	0.4	0.6	4.9	3.7	29
Italy	1953 to 1955	0.4	2.8	0.5 [e]	0.7	4.4	3.2	22
Switzerland	1953 to 1955	0.6	..	..	..	..	..	..
United Kingdom	1950 to 1952	0.3	1.7	0.4	0.5	2.9	2.1	21
	1953 to 1955	0.4	2.5	0.4	0.6	3.9	2.2	25
Portugal	1953 to 1955	0.3	..	0.8	0.7	3.0	..	22
Greece	1950 to 1952	0.6	1.1	0.3	0.5	2.5	..	17
	1953 to 1955	0.1	0.9	0.8	0.2	2.0	1.7	15
		Gross investment as a percentage of net national income						
Czechoslovakia	1949 to 1953	..	..	..	..	4.7	..	20
Bulgaria	1949 to 1955	0.9 [f]	..	..	..	3.4	..	18
Poland	1950 to 1955	1.6	..	..	..	3.3	..	13
Hungary	1950 to 1954	1.2	0.8	1.2		3.2	..	13
Soviet Union	1951 to 1955	1.2–1.5	..	..	..	2.0–2.5	..	12
Eastern Germany	1949 to 1955	..	..	..	..	0.7 [g]	..	9

Sources and methods : See Appendix B.

NOTE. — As a result of differences in statistical conventions, the percentages for eastern European countries are not strictly comparable with those for western European countries. On the one hand, in eastern Europe prices for capital goods are lower in relation to prices for consumer goods than in western Europe, and the numerator consequently tends to be understated. On the other hand, the denominator tends to be understated for the eastern countries also, because certain services are excluded from the concept of national income and because the figures are believed to refer to net national income rather than to the gross national product. It cannot be said whether the net effect is to give the percentages for eastern European countries an upward or a downward bias in comparison with those for western European countries.

[a] In descending order of total investment in transport and communications as a percentage of gross national product or net national income.

[b] Excluding motor-cycles.

[c] The figures for rolling stock include trams and those for other railway investments include tramways, bus and motor-coach services.

[d] Based on incomplete data.

[e] Including canal and river boats and aircraft.

[f] The figures refer to renewals only in the year 1954.

[g] Excluding communications.

about one-half in Poland. The proportion for most other eastern European countries is not known, but railways probably account for about one-half or more of total transport investment. In spite of the predominant place which railway investment holds in eastern European transport investment, it does not seem large in relation to the rapidly increasing traffic which the railways have to cope with in these countries, nor, in the case of the Soviet Union, in relation to the low density of the existing rail network.

The information available on plans for the period 1956 to 1960 in the Soviet Union and some of the eastern European countries indicates that transport investment will in this period continue to account for a lower share of gross national product and of total investment than in other European countries. If more emphasis is to be given to the development of road transport, as seems to be the intention, it will be necessary for the eastern European countries to increase the share of transport in total investment.

TABLE 8

Gross fixed investment in road transport

Country [a]	Period	Total gross investment in road transport [b]		Of which:				Total expenditure on road network, including maintenance	
				Passenger cars	Buses and motor coaches	Lorries	Road network		
		Dollars per inhabitant	Percentage of gross national product						Dollars per vehicle
Sweden	1950 to 1952	..	..	..	..	..	0.76	1.34	*218*
	1953 to 1955	*49*	4.31	2.47	0.11	0.61	1.12	1.74	*218*
Luxembourg	1950 to 1952	*31*	2.94	1.29	0.12	0.43	1.09	1.25	*249*
	1953 to 1955	*42*	3.70	1.61	0.14	0.58	1.38	1.57	*222*
Switzerland	1950 to 1952	..	..	..	..	..	..	0.93 [c]	*231* [c]
	1953 to 1955	..	..	1.50	0.02	..	0.75 [c]	1.18 [c]	*240* [c]
Finland	1953 to 1955	*31*	3.60	0.69	1.21		1.70	2.48	*726*
Denmark	1950 to 1952	*13*	1.65	0.46	0.08	0.50	0.61	1.11	*193*
	1953 to 1955	*31*	3.42	1.85	0.11	0.69	0.76	1.24	*175*
Belgium	1950 to 1952	*25*	2.72	1.39	0.03	0.55	0.75	..	..
	1953 to 1955	*30*	2.92	1.79	0.02	0.51	0.60	..	..
France	1952 to 1954	*28*	2.83	1.26	0.07	0.78	0.69	1.16	*140*
United Kingdom	1950 to 1952	*14*	1.67	0.82	0.18	0.55	0.08	0.71	*82*
	1953 to 1955	*25*	2.51	1.66	0.10	0.63	0.09	0.71	*81*
Norway	1952 to 1954	*24*	2.61	0.84	1.11		0.66	1.39	*244*
Netherlands	1954 to 1955	*23*	3.34	1.37	0.14	0.83	1.00	..	..
Western Germany	1950 to 1952	..	..	..	..	..	0.52	1.08	*241*
	1953 to 1955	*20*	2.80	1.30	0.13	0.62	0.75	1.31	*226*
Ireland	1950 to 1952	*13*	3.18	1.44	1.17		0.57	1.51	*138*
	1953 to 1954	*18*	3.73	1.56	1.18		0.98	1.96	*181*
Austria	1950 to 1952	*8*	1.75	0.38	0.17	0.36	0.84	1.61	*455*
	1953 to 1955	*16*	3.22	1.21	0.11	0.84	1.06	1.79	*382*
Italy	1953 to 1955	*12*	2.85	1.16	0.11	0.84	0.74	1.22	*220*
Yugoslavia	1952 to 1953	*2*	0.90	0.35			0.53	..	..
	1954 to 1955	*2*	0.98	0.38			0.58	..	..
Greece	1950 to 1952	*2*	1.05	0.63			0.42	..	..
	1953 to 1955	*2*	0.91	0.27	0.02	0.26	0.36	..	..
Portugal	1950 to 1952	..	..	..	0.02	..	0.35 [d]	..	..
	1953 to 1955	..	..	..	0.02	..	0.30 [d]	..	..

Sources and methods : See Appendix B.

[a] In descending order of total investment in road transport in dollars per inhabitant.

[b] Excluding motor-cycles.

[c] Based on incomplete data.

[d] State roads only.

The high rate of investment in transport in the Scandinavian countries, the Netherlands and Yugoslavia is in part due to the development of their merchant marines. All of these countries, as well as Greece and Portugal, devoted at least twice as big a share of their national product to investment in shipping as did France and the United Kingdom. In Norway, as much as 5 per cent of the gross national product was devoted to shipping investment in the period 1952 to 1954.

The Need for Road Investment

Gross investment in road transport in Europe in recent years has ranged from about $2 per capita, or one per cent of gross national product in some of the southern European countries, to $20 to $30, or around 3 per cent of gross national product, in the more developed western European countries. The highest rate appears in Sweden with nearly $50 per inhabitant, or 4.3 per cent of gross national product (Table 8).

This high level of investment reflects mainly the boom in purchases of passenger cars. While investment in lorries has ranged from one-half to one per cent of gross national product and road investment was somewhat higher than that, purchases of passenger cars alone accounted for between 1.2 and 2.5 per cent of gross national product in western European countries. In the four years from 1950 to 1954 the number of passenger cars more than doubled in a number of countries, and it rose by more than 50 per cent in nearly all the others (Table 9). In many countries the percentage increase from 1950 to 1954 was larger than in the previous twenty years. At the same time the increase in the number of motor-cycles (not included in Tables 8 and 9) was still greater in many countries. Between 1954 and until the beginning of petrol rationing in the fall of 1956, the rate of increase in purchases of passenger cars did not slow down, but accelerated in a number of countries.

From 1950 to 1954, the number of lorries increased much more slowly than that of passenger cars; but the rate of growth in numbers of lorries does not reflect the large increase in their carrying capacity, which enabled many enterprises to handle the same or a larger volume of transport with fewer vehicles.

TABLE 9

Growth of the motor vehicle park in Europe since 1930

Country[a]	Number of motor vehicles[b] in 1954			Passenger cars				Lorries			
	Total	Passenger cars	Lorries	1930	1938	1954	1956[c]	1930	1938	1954	1956[c]
	Thousands	Number per thousand inhabitants		*Index numbers—1950 = 100*							
Sweden	652	*74*	*14*	41	62	211	292	54	67	127	132
France[d]	3 802	*62*	*25*	62	113	149	191	49	52	133	152
United Kingdom	4 372	*63*	*22*	47	85	135	169	38	54	118	131
Luxembourg	25	*60*	*19*	63	81	195	..	65	98	135	..
Belgium	570	*45*	*19*	36	56	146	183	40	55	117	130
Denmark	289	*44*	*21*	67	92	164	205	53	69	159	175
Switzerland	286	*50*	*8*	41	51	162	210	39	54	127	154
Norway	188	*32*	*25*	42	95	166	208	38	69	159	179
Ireland	162	*42*	*13*	41	58	134	148	36	43	150	171
Western Germany	2 158	*30*	*13*	54	138	270	394	27	60	164	164
Netherlands	345	*22*	*10*	49	72	158	228	58	63	123	152
Finland	121	*17*	*11*	91	..	264	388	35	..	147	199
Italy	1 091	*16*	*7*	60	96	222	318	34	37	148	172
Austria	152	*13*	*8*	34	55	179	370	32	31	123	147
Portugal	131	*10*	*4*	40	..	143	..	19	..	140	..
Spain	218	*4*	*3*	160	..	131	..	58	..	122	..
Turkey	66	*1*	*1*	22	34	213	224[e]	21	25	197	223[e]
Yugoslavia	34	*1*	*1*	142	212	177	219	18	27	126	137

Sources : National statistics.

[a] In descending order of number of motor vehicles per inhabitant.

[b] Excluding motor-cycles.

[c] Estimates based on partial data.

[d] Index numbers based on unofficial estimates.

[e] 1955.

The rapid rise in the numbers and speed of passenger cars, as well as in the size and speed of lorries, has created grave problems of road safety and has made it clear that in the most densely populated regions the existing road network is inadequate to handle the traffic. Therefore, in most countries plans have been put forward for the construction of " motor-ways ", a type of road which until recently hardly existed in Europe outside Italy, Germany and the Netherlands.

In Chart 1 an attempt is made to illustrate graphically the different conditions for motor traffic in various countries. Although the comparison may be somewhat impaired by national variations in the definition of a road and by the absence of accurate data in some countries, the chart gives a fairly good impression of the main differences between countries. A glance at the chart shows that in the whole of eastern and southern Europe except Italy the number of motor vehicles per inhabitant is so low that there is hardly any traffic on the road even where the road network is very limited. Only the Soviet Union has so few roads that traffic density is very high in spite of a relatively small number of vehicles per inhabitant.

In most countries with a large number of motor vehicles the average traffic density is nevertheless fairly moderate, either because the population density is low or because the road network is well developed. Sweden and France belong to this group. In the United Kingdom and, to a lesser extent, western Germany, on the other hand, a large number of vehicles per inhabitant, a high population density and a relatively short road network combine to create the highest traffic densities in Europe. Although the United Kingdom has the most serious traffic problem of any European country, the amount spent on the construction and maintenance of roads has been by far the smallest in recent years, both per vehicle and as a share of the national product. While most countries listed in Table 8 spent \$200 to \$250 per year per vehicle for this purpose, the United Kingdom spent less than \$85 per year in the period 1950 to 1955.

As long as motoring was in its infancy it was necessary, if similar service were to be provided, to spend relatively much more—per head and per vehicle—on roads in the sparsely than in the densely populated regions. The cost of construction and of maintenance of roads was high in sparsely populated regions, because the capacity of roads was very badly utilized. When the number of motor vehicles increases, however, the cost of road building and maintenance per vehicle is reduced because the capacity of the roads is better utilized, and only relatively small additional outlays for improvement and maintenance are required. In densely populated regions, on the other hand, the rapid rise in numbers of motor vehicles tends to increase expenditure on roads to such an extent that the average per motor vehicle may rise, because the traffic problem can no longer be solved by improvement of the existing roads, but requires construction of a completely new network of a much more expensive type than the older one. It has been estimated that in France the cost of maintenance and renewal, per vehicle-kilometre, amounts to one franc on main national roads with an average daily traffic of 3,000 vehicles against 6.50 francs on small rural roads with a daily traffic of 65 vehicles. It was also estimated that the cost of amortization and maintenance of a new motor-way with an average daily traffic of 7,000 vehicles would amount to 3.80 francs per vehicle-kilometre.[4] The figures below, although not strictly comparable and referring partly to actual cost of road construction and partly to estimates taken from road building plans, give an impression of the difference in costs of construction of various types of road.

Cost of Road Construction

(Dollars per linear metre)

	Normal roads			*Motor-ways*		
	Min.	*Aver.*	*Max.*	*Min.*	*Aver.*	*Max.*
Sweden (1956 road plan) .	40		100	300		400
Western Germany (10-year plan)		150–200			650	
Italy [a]	20	30	80	200		650
Netherlands (actual costs) .				200		500
United Kingdom (actual costs)	50		90	350		450
(Proposed London inner belt)						21 000
France (Paris-Lille road) .				350	550	1 150

[a] Figures of the Cassa per il Mezzogiorno for normal roads, and estimates of the Federazione della Strada for motor-ways.

The maximum costs for motor-ways in Sweden, Italy and the Netherlands do not refer to roads in built-up areas.

In general, the construction of motor-ways seems to cost 300,000 to 500,000 dollars per kilometre, but the cost is several times higher in built-up areas. It is far more expensive per kilometre to construct roads in densely populated areas than under the most difficult natural conditions; the estimated cost of the proposed inner ring road envisaged around the centre of London is ten times as high per kilometre as that of the proposed tunnel under the Mont Blanc, connecting France and Italy.

The present plans for construction of motor-ways in western Germany, France, the United Kingdom, Italy and Sweden foresee the construction of between 600 and 2,000 kilometres of motor-ways each; plans in the other countries cover smaller distances. This is only the very first beginning covering the needs in the first decade or two. Even in the United Kingdom, France and Sweden, numbers of motor vehicles

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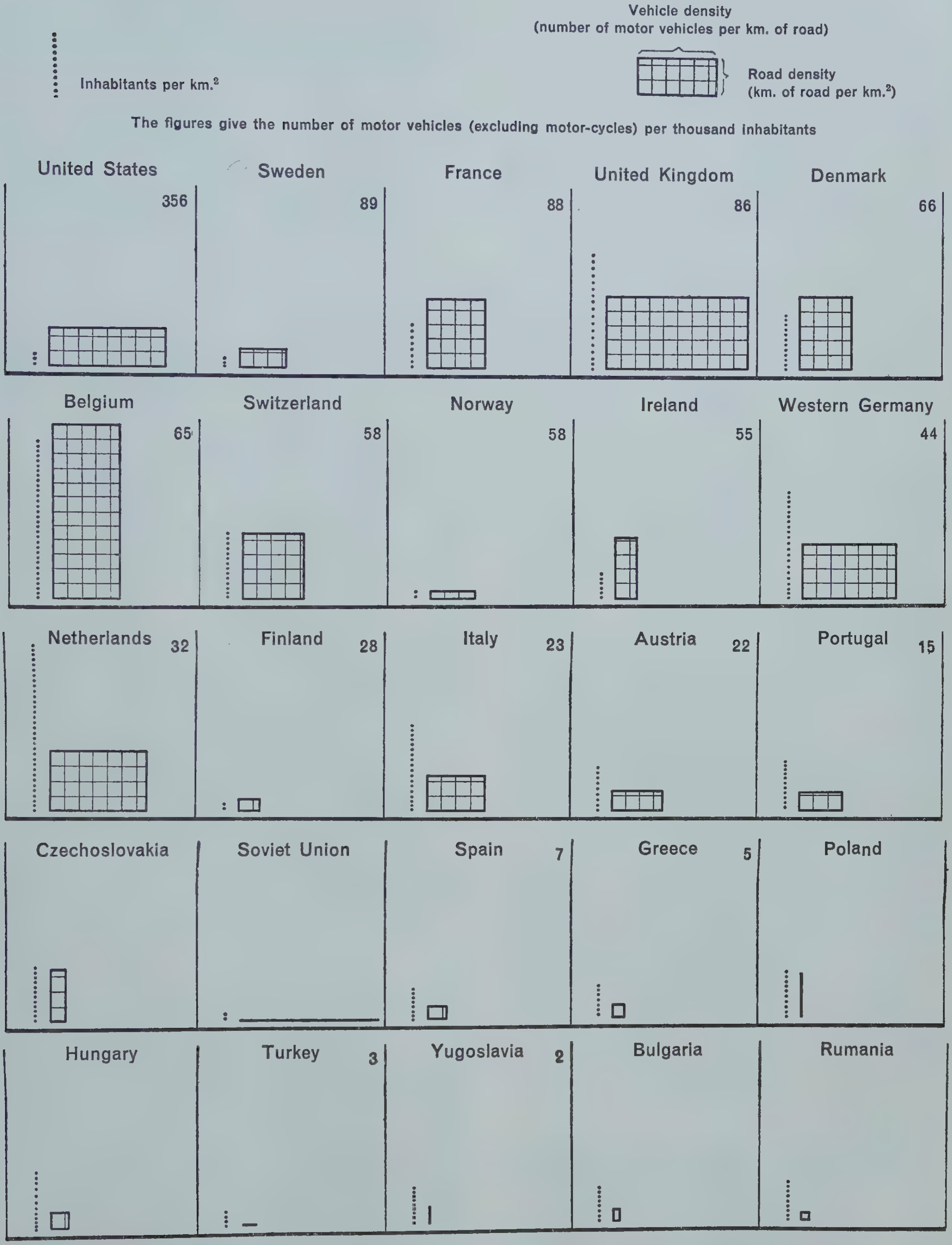
[4] M. Brunot, *Bulletin de l'Association des ingénieurs des ponts et chaussées et des mines*, Paris.

CHART 1

Road density and vehicle density in 1954



The figures give the number of motor vehicles (excluding motor-cycles) per thousand inhabitants

NOTE. — The figures for road density and vehicle density are not strictly comparable from one country to another, because of differences in coverage and definitions of national data. For instance, the official figure for the length of the road network in Belgium seems to include roads which are seldom used for motor traffic and which are known to be excluded from the figures for the Netherlands and France. The figures for vehicle density in the eastern European countries are based on estimates of the number of motor vehicles, because official figures are not available.

per inhabitant have so far only reached the level attained in the United States in 1922, and are only one-fourth of the present United States level. Sweden, Norway, Finland and the Soviet Union are the only European countries where the density of population is as low as in the United States. Everywhere else in Europe traffic problems are bound to be much more difficult to handle as the number of motor vehicles increases.

In the United Kingdom, Germany and the Benelux countries, where population density is 10 to 15 times as high on average as in the United States, it is difficult to see how it will be possible to handle road traffic when the number of motor vehicles has reached levels several times those of today. It is clear that it will be necessary to spread both work places and dwellings more evenly over their territories, so as to limit daily movements between peripheries and town centres and weekly movements between towns and countryside.

Investment and Disinvestment in the Railway Network

The high level of road traffic in the industrialized western European countries, together with the high

TABLE 10

Gross fixed investment in railways

Country [a]	Period	Percentage of gross national product			Percentage of total railway revenue		
		Rolling stock	Other	Total	Rolling stock	Other	Total
Norway	1952 to 1954	0.18	0.67	0.85	11	40	51
Yugoslavia	1952 to 1953	1.48	1.69	3.17	23	27	50
	1954 to 1955	1.90	1.34	3.24	29	21	50
Netherlands	1954 to 1955	0.38 [b]	0.29 [c]	0.67	24 [b]	19 [c]	43
Ireland	1950 to 1952	0.07	0.50	0.57	3	25	28
	1953 to 1954	0.28	0.41	0.69	14	22	36
Finland	1953 to 1955	0.24	0.72	0.96	9	25	34
Belgium	1950 to 1952	0.18	0.57	0.75	6	20	26
	1953 to 1955	0.30	0.59	0.89	11	23	34
France	1952 to 1954	0.59	0.47	1.06	17	13	30
Austria	1950 to 1952	. .	. .	1.23	. .	. .	31
	1953 to 1955	0.44	0.84	1.28	10	18	28
Sweden	1950 to 1952	. .	. .	0.55	. .	. .	17
	1953 to 1955	0.33	0.40	0.73	11	13	24
Italy	1953 to 1955	0.16	0.22	0.38	10	13	23
Portugal	1950 to 1952	0.14	. .	. .	9	. .	. .
	1953 to 1955	0.17	0.16	0.33	12	11	23
Luxembourg	1950 to 1952	0.32	0.81	1.13	5	12	17
	1953 to 1955	0.70	0.72	1.42	9	10	19
Western Germany . . .	1953 to 1955	0.29	0.42	0.71	8	11	19
Denmark	1950 to 1952	0.15	0.20	0.35	8	11	19
	1953 to 1955	0.14	0.18	0.32	8	10	18
Switzerland	1953 to 1955	0.25	0.30	0.55	7	8	15
United Kingdom. . . .	1950 to 1952	0.20	0.08	0.28	8	3	11
	1953 to 1955	0.26	0.09	0.35	11	4	15
Greece	1950 to 1952	0.47	0.16	0.63	. .	. .	. .
	1953 to 1955	0.04	0.05	0.09	6	7	13

Sources and methods : See Appendix B.

[a] In descending order of total railway investment as a percentage of total revenue.

[b] Including trams in the investment figures.

[c] Including tramways and bus and motor-coach companies in the investment figures.

density of existing railway networks, makes it natural that railway investment in these countries should account for a considerably lower share of gross national product than in the rest of Europe. Nevertheless, in most of these countries gross investment in railways has been by no means negligible in terms of national product, and very substantial when measured as a percentage of the revenue of the railways.

It can be seen from Table 10 that in recent years gross investment in railways in most western European countries has ranged from 20 to 40 per cent of total railway revenue; in Norway and Yugoslavia, both of which are undertaking big expansions of their rail networks, it was as high as 50 per cent. Investment in rolling stock in most countries took from 10 to 20 per cent of total railway revenue and showed a pronounced tendency to increase from the years 1950 – 1952 to 1953 – 1955. This reflects the increasing tendency to modernize equipment under pressure of the competition from road traffic.

Gross investment in railways in the United Kingdom has in recent years been among the lowest in Europe in relation both to national product and to railway revenue, as can be seen from Table 10. The new British plan of railway modernization will, however, raise railway investment in the next five years to twice or more the rate of the years 1953 to 1955.

The large differences between countries in the level of railway investment are accounted for mainly by investment in the rail network. This covers partly improvement of existing lines—for instance, electrification of lines and modernization of signal systems and stations—and partly the building of new lines.

Over the last 25 years the expansion of rail networks was concentrated in the Soviet Union and the less industrialized countries in eastern and southern Europe (Table 11). The only other European countries which built new railway lines in this period were Norway and Finland, where the railway networks—although large in relation to the number of inhabitants—were fairly small in relation to the size of the territory.

In the Soviet Union the growth in the volume of goods transport was so rapid that, despite an increase of around two-fifths in the length of the lines, the density of goods traffic per kilometre of line trebled during the 25 years and is now six times as high as in the highly industrialized western European countries. Part of this difference is, of course, due to the very long average hauls, more than three times the average for other European countries and double that of the United States. By the intensive utilization of its railways the Soviet Union has been able to handle a tremendous load of freight traffic without devoting a large share of national income to railway investment.

In eastern Germany, Poland and Czechoslovakia the densities of goods traffic are higher than in western Europe, though much lower than in the Soviet Union. But the eastern European countries are less well equipped to handle a large volume of freight than the Soviet Union, because their railways, like those of other European countries, have a relatively small loading gauge while those of the Soviet Union—like those of the United States—have a larger loading gauge, which permits the use of large-capacity wagons and the running of heavier trains.[5]

In the southern European countries and in Norway and Finland, the expansion of the rail network was due to the desire to open up new regions for development; despite sizeable increases since 1930, the density of both goods and passenger traffic still remains low. It was as low as one million traffic units in Turkey, 700,000 in Norway and 600,000 in Portugal.[6] These average densities of traffic over the whole network are not much above the traffic density of 400,000 to 500,000 unit-kilometres which has been recommended by railway experts at international railway congresses as the necessary minimum for profitable operation of new railway lines. On the railways which are now being built in northern Norway and between Andalsnes and Alesund in the western part of the country, the expected traffic densities are in the neighbourhood of 90,000 and 120,000 unit-kilometres, respectively—that is, less than half the density of 250,000 unit-kilometres which has been suggested as the limit below which existing lines should be taken out of operation.[7]

Outside Norway and Finland, the expansion of railway networks long ago came to an end in western European countries, and in most of them the reverse operation—abandoning of railways—has begun. The railway networks in western Europe were overbuilt in the period before the spread of road transport and at a time when an expected traffic density of about 40,000 unit-kilometres was held to be sufficient to justify a new line. Now the networks are being curtailed by abandoning single-track and even double-track lines with very low densities of traffic. Thus, between 1930 and 1954 the railway network was reduced by 6 per cent in the United Kingdom and France and by 10 per cent or more in the Netherlands, Denmark, Ireland and Luxembourg. Besides the total closure of rail lines, considerable sections of the rail-

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[5] In the Soviet Union the track gauge is also broader than in other European countries, while the railways in the United States combine a large loading gauge with a track gauge of the same size as that in Europe, west of the Soviet Union.

[6] Traffic unit-kilometres have been calculated on the basis of one passenger-kilometre equals one ton-kilometre, which is generally used for statistical purposes in Europe.

[7] See John H. Paxel, "Rail or Road", *Statsøkonomisk Tidsskrift*, 6 October 1952.

TABLE 11

Length of railway network and density of traffic in 1954

Country [a]	Inhabitants per km.^{2}	Length of railway lines			Density of traffic per km. of line			
		Per 100,000 inhabitants	Per 1 000 km.^{2}		Goods traffic	Passenger traffic	Total traffic	Percentage increase in total traffic density since 1930 [d]
		Kilometres	Kilometres	Percentage increase since 1930 [b]	Millions of ton-km.	Millions of pass.-km.	Millions of unit-km.[c]	
Netherlands	305	30	92	−13	1.1 [e]	2.2	3.3	. .
Belgium	289	56	161	−4	1.2	1.5	2.7	−11
United Kingdom [f]	215	62	134	−6	1.2	1.1	2.3	22
Western Germany	202	62	124	—	1.4	1.2	2.6	47
Italy	159	46	73	1	0.6	1.1	1.7	87
Switzerland	119	105	126	−2	0.6	1.3	1.9	76
Luxembourg	118	155	184	−12	1.1	0.5	1.6	. .
Hungary	104	85	88	7	1.0	1.4	2.4	207
Denmark	103	105	108	−13	0.3	0.7	1.0	150
Czechoslovakia	101	101	103	4	2.2	1.7	3.9	189
Portugal	94	41	39	5	0.2	0.4	0.6	35
Poland	86	101	87	15	1.8	1.3	3.1	146
Austria	83	86	72	3	1.0	0.9	1.9	48
France	78	93	72	−6	1.0	0.6	1.7	1
Yugoslavia	68	67	46	22	0.8	0.6	1.3	128
Bulgaria	67	50	34	26	1.0	0.7	1.7	4.41
Greece	60	19	11	−1	0.2	0.4	0.6	125
Spain	57	45	26	. .	0.5	0.6	1.1	. .
Albania	48	9	4	[g]	. .	. .	. .	. .
Ireland	42	135	56	−10	1.2	. .	. .	. .
Turkey	30	33	10	45	0.5	0.5	1.0	412
Sweden	16	226	36	−1	0.6	0.4	0.9	133
Finland	12	116	14	9	0.8	0.4	1.3	143
Norway	10	129	14	26	0.3 [h]	0.4	0.7 [h]	86
Soviet Union	9	62	5	41	7.1	1.1	8.2	290

Sources : See Appendix B.

NOTE. — Private railway systems are included where important except for western Germany, Greece and Spain where only national railways are included.

[a] In descending order of inhabitants per km^2.

[b] Pre-war figures relate to post-war territory.

[c] Calculated on the basis of 1 pass.-km. = 1 ton-km.

[d] Pre-war figures relate to pre-war territory except for the Soviet Union where the Baltic States are included.

[e] Excluding less than wagon-load traffic.

[f] Excluding Northern Ireland.

[g] All the network was built after the war.

[h] Corresponding figures excluding Ofoten railway would be 0.2 and 0.6 for goods traffic and total traffic respectively.

way network in some countries have been closed to passenger traffic, as is shown by the figures below:

Railway Lines no longer open to Passenger Traffic in 1954

(Percentage of total network)

France	24
Netherlands	22
United Kingdom	13
Belgium	13

In addition, a number of stations have been closed for passenger services on lines which are otherwise open for both freight and passenger transport. In the Netherlands, two-thirds of all stations have been closed to passenger traffic.

The extent to which European countries are expanding or reducing their railway networks reflects not only the densities of their existing networks in relation to population and area, but also differences in the level of road traffic. While in western Europe the rapid growth of road traffic has caused an actual reduction of the railway network, in most of southern Europe it has now put an end to the age of railway building. In eastern Europe and the Soviet Union, where long-distance road traffic is still insignificant, there is no tendency to close down railway lines, even though some eastern countries have a network as dense in relation to area and population as those of western Europe. Railway building has continued until

TABLE 12

Methods of traction used on European railways in 1954

Country [a]	Percentage of traffic hauled by			Percentage of network electrified	Ratio of coal to electricity consumption per unit of traffic [b]
	Steam	Diesel	Electricity		
Switzerland	2	—	98	97	..
Sweden	9	3	88	41	..
Netherlands	16	21	63	42	5.1
Italy	27	3	70	36	4.6
Norway	41	15	44	28	3.6
Austria	50	2	48	23	3.4
France	64	3	33	12	4.1
Denmark	65	26	9	2	..
Soviet Union	86	6	8	4	..
Belgium	86	2	12	8	4.1
United Kingdom [c]	86	1	13	5	4.4
Spain	87	2	11	8	4.2
Western Germany	87	2	11	6	3.0
Finland	90	10	—	—	..
Greece	91	9	—	—	..
Hungary [d]	*92*	*6*	*2*	2	..
Rumania [e]	*93*	*7*	—	..	..
Czechoslovakia [f]	98	..	..	1	..
Turkey	98	2	—	—	..
Yugoslavia	98	—	2	1	3.9
Poland	..	..	..	1	..
Portugal	..	..	..	1	..
Bulgaria	..	..	..	—	..

Sources : International Railway Statistics, Paris, and national statistics.

NOTE. — Figures are based on gross train ton-km., except for the Netherlands, Norway, the United Kingdom and Finland, where they are based on train-km., and Hungary and Rumania, where they are based on number of locomotives. The figures do not cover private railways.

[a] In ascending order of percentage of traffic hauled by steam.

[b] Ratio of traffic carried per unit of fuel consumption in terms of coal or coal equivalent; electric energy converted to coal equivalent on the basis of the average amount of coal needed to generate 1000 kWh in the public supply power plants in each country.

[c] Excluding Northern Ireland.

[d] 1947.

[e] 1946.

[f] 1948.

recently in all eastern European countries, and most of them have made plans for further extensions.

From Steam to Electric and Diesel Traction

In the Soviet Union and eastern Europe the increasing volume of traffic and the intensive utilization of the network act as an incentive to modernization of the railways. In western Europe the challenge from road transport produces the same result. The need to become more efficient in operation, and hence competitive, is pressing more urgently upon the western railway administrations than ever before. Thus, in both western and eastern Europe railway investment is directed towards technical improvements and modernization.

Foremost among these improvements is the changeover from steam to electric or diesel traction. This change of tractive power makes it possible to run faster and heavier trains; but, by the same token, supplementary investments are required, such as heavier rails, better and preferably automatic signalling, etc. Without these supplementary investments, the full measure of the savings resulting from the change in tractive power cannot be realized.

In most European countries the existing steam locomotives use three to five times more fuel (in coal equivalent) per unit of traffic than electric locomotives, as can be seen from the last column in Table 12. Part of this difference is of course due to the fact that the electric locomotives are used on lines with denser traffic and therefore better utilization of the tractive power. The reductions in fuel consumption which can be obtained by shifting from steam to electric traction on a particular line are therefore considerably smaller, but usually about 50 per cent. The economic benefits from the abandonment of steam traction are not limited to savings in fuel, which even in countries using steam traction accounts for only about one-eighth of the total expenses of the railways. The main advantages gained from the change in tractive power, and the supplementary investments, are savings resulting from lower labour requirements and from a more intensive use of rolling stock. In addition, there are the commercial as well as social benefits of eliminating air pollution by steam locomotives, of cleaner trains and of doing away with the heavy and dirty work of firing, cleaning and servicing the locomotives.

In the United States, the change-over from steam to more efficient means of traction was nearly completed in the first post-war decade. In most European countries it has hardly begun. Some mountainous countries of Europe with cheap hydro-power, such as Italy, Austria, Sweden and Norway, have already electrified a considerable part of their networks and in Switzerland virtually the whole network is electrified. All the major coal-producing countries in both western and eastern Europe, however, still carried 85 to 90 per cent of their traffic by steam in 1954 with the single exception of France, where the share of steam was two-thirds.

Obviously the availability of local fuel and the relationship between capital costs and traffic densities are very important considerations in the choice of tractive power. In the United States both factors work in favour of diesel traction and more than 85 per cent of all freight trains were drawn by diesel locomotives in 1955. In Europe the preference is in most cases for electric traction although a few countries carry a relatively important share of their traffic by diesel traction. Until now, the Netherlands has been the only country carrying a large share of traffic by electric locomotives using thermal electricity, but the scarcity of good quality coal together with the other advantages of electrification has given impetus to the shift away from steam traction even in coal-producing countries with few or no hydro resources. In the next decade the share of the network electrified is going to increase considerably in these countries, as can be seen from the figures below:

Percentage of Network with Electric Traction

	Present (1954) Percentage	*Plan* [a]	
		Percentage	*Year*
Netherlands	42	51	1958
Italy	36	44	1965
Norway	28	54	1965
France	12	16	1960
Belgium	8	17	1956
Western Germany	6	10	1960
United Kingdom	5	13	1970
Soviet Union	4	38	1970
Poland	1	5	1960

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[a] Future electrified network as percentage of total *present* network.

Since the lines with heavy density of traffic are in most cases the first to be electrified, the share of traffic carried by electric traction will be considerably higher than the share of the network electrified. Moreover, some of the non-electrified lines will be abandoned and many others will change to diesel traction. In both the Soviet Union and the United Kingdom it is planned to introduce diesel traction on the lines which are not to be electrified, and both countries have therefore stopped building steam locomotives for use at home.

It is clear from what has been said that western European countries are faced with problems of deciding which lines to electrify and improve and which to abandon. Electrification, with all the necessary supplementary investments, may be too great a burden for relatively poor countries, and under all circumstances it is uneconomic on lines with sparse traffic. A shift to diesel traction, which is less capital-intensive than electrification, may be the right solution in some cases; but in others it may be more economic to close a large share of the secondary lines and to substitute bus and lorry services for them.

3. The Cost Structure of Rail and Road Transport

The distribution of the traffic between railways and road transport undertakings is to a considerable extent decided by the differences in their cost structure. Most of the costs of the railways are independent of the volume of traffic handled, while this is true only for a small part of the costs of the road transport enterprises. It was mentioned above that, in the operating costs of the railways, the share that is independent of the volume of traffic is so large that a railway line which does not have at least 250,000 traffic units per year per kilometre cannot be expected to cover its operating costs. If this necessary minimum traffic is assumed to be exclusively goods traffic, it corresponds to about 800 tons a day, or what may be carried by 50 heavy or several hundred small lorries. The minimum traffic necessary for profitable running of a bus line or, *a fortiori*, a lorry is obviously very much smaller. Road traffic is therefore in a relatively strong competitive position where traffic is sparse, while the relative advantage of railway traffic becomes larger the denser the volume of traffic becomes. By raising the share of capital costs railway modernization tends to make the contrast in the cost structure of the two means of transport more and more pronounced.

Partly because of varying degrees of railway modernization and partly because of differences in traffic

TABLE 13

Operating expenses of European railways per unit of traffic in 1954

Country [a]	Fuel and power	Other operating expenses relating to rolling stock	Maintenance and supervision of fixed installations	Other operating expenses	Total operating expenses [b]	of which labour	Total operating expenses [b]
	including labour						
	Index numbers : European average for each column = 1						*U.S. cents*
Netherlands	0.7	0.4	0.4	0.7	0.6	0.5	0.7
Italy [c]	0.6	0.7	1.1	0.7	0.8	0.7	1.0
Austria	0.9	0.6	0.8	0.8	0.8	0.8	1.0
Sweden	0.5	0.8	1.0	0.9	0.8	1.1	1.1
Belgium	1.1	0.8	0.8	0.8	0.8	1.0	1.1
Turkey [d]	0.6	0.8	0.7	1.1	0.9 [b]	0.8	1.2 [b]
Spain	1.6	1.1	0.6	0.6	0.9	0.8	1.2
Western Germany	1.0	0.8	0.9	0.9	0.9	1.1	1.2
Portugal	1.4	0.8	0.7	0.9	0.9	1.0	1.2
Yugoslavia [d]	1.6	0.2	0.2	1.5	0.9	0.3	1.2
Switzerland	0.5	0.8	0.9	1.4	1.0 [b]	..	1.4 [b]
Finland	1.7	1.0	0.8	1.0	1.1	1.0	1.5
Denmark [c]	1.1	0.8	0.6	1.6	1.1	1.4	1.5
Greece	2.3	0.9	1.2	0.9	1.1	1.3	1.6
France	1.0	1.3	1.2	1.2	1.2	1.3	1.7
United Kingdom [e]	1.2	1.5	1.3	1.1	1.2 [b]	..	1.7 [b]
Bulgaria [f]	2.7	..	..	..	1.5 [g]	0.8	2.0 [g]
Luxembourg	1.3	1.6	1.2	1.6	1.5	2.0	2.0
Norway [c]	1.0	1.4	1.7	1.6	1.5	2.0	2.0
United States	..	..	0.6	..	0.6	0.8	0.9
	Each column as percentage of total operating expenses						
European average	13	32	18	37	100	54	1.4

Sources : International Railway Statistics, Paris, and national statistics.

NOTE. — Because of the difficulties involved in producing comparable figures for operating costs and because of difficulties in making due allowance for the varying degree of vertical integration of the railways, the information given in the table should be taken to represent orders of magnitude only, and no conclusions should be drawn from minor differences in costs between countries. Units of traffic have been calculated by adding up passenger and merchandise traffic on the basis of 1 passenger-kilometre = 1 ton-kilometre, which is generally used for statistical purposes in Europe. For a discussion about the relation between cost per kilometre of passenger traffic and of goods traffic, see page 27.

[a] In ascending order of total operating expenses per unit of traffic.

[b] Operating expenses exclude renewals and pensions, except for the figures for the United Kingdom, which include both renewals and pensions, the figures for Turkey, which include renewals, and the figures for Switzerland, which include pensions.

[c] Figures refer to 1953/54.

[d] Figures refer to 1953.

[e] Excluding Northern Ireland.

[f] At the official rate of exchange of 6.80 leva = 1 U.S. dollar.

[g] Including depreciation.

density, wage levels and natural conditions, average operating costs of railways per unit of traffic vary considerably from country to country, as can be seen from Table 13.[8] The importance of railway modernization in relation to costs springs to the eye when this table is compared with the preceding one, showing systems of tractive power, and with Table 17 which shows utilization of equipment. The countries where railway costs per unit of traffic are well below the European average are generally among those which have gone furthest in eliminating steam traction; and the countries with the best utilization of the equipment are also generally those with the lowest costs. The very great role played by natural factors and traffic density can also be seen; mountainous countries with very small traffic density, such as Greece and Norway, are among those that have high railway costs. The variations in costs between countries are very large; while the European average for operating costs per unit-kilometre in 1954 was around one and a half U.S. cents the averages for individual countries varied from two-thirds to two U.S. cents.

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[8] The comparison in the table has been limited to operating costs because of the lack of comparability between countries for expenditure on renewals or depreciation and other capital charges. For a comparison of operating costs as here defined and total expenditure, see Table 18.

Wages and salaries account for more than half the operating costs of European railways, even when pensions are excluded. Both efficiency in the use of labour and the level of money earnings are, therefore, major factors explaining differences in railway costs. Table 14 shows the influence on labour costs of efficiency in the use of labour, on the one hand, and the level of money earnings on the other. It is in accordance with general notions about productivity differences between European countries that, when the countries are arranged in ascending order of the use of labour per unit of traffic, the list is headed by the Netherlands and Sweden, while Spain, Greece and Portugal come last. It is somewhat surprising, however, to find that Italy ranks before western Germany, and France before the United Kingdom and Denmark. The explanation is probably that railway modernization has gone further in Italy and France than in the three other countries.

TABLE 14

Labour cost of European railways in 1954

Index numbers : European average for each column = 1

Country [a]	Input of labour	Salaries	Labour costs
	Employees per unit of traffic	Labour expenses per employee	Labour expenses per unit of traffic
Netherlands	0.5	0.9	0.5
Sweden	0.7 [b]	1.4	1.1
Italy [c]	0.7	0.9	0.7
Finland	0.8	1.1	1.0
Bulgaria	0.8	0.9	0.8 [f]
Belgium	0.9	1.1	1.0
France	0.9	1.4	1.3
Western Germany	0.9	1.0	1.1
Austria	1.0	0.8	0.8
Denmark [c]	1.1	1.2	1.4
Yugoslavia	1.2	0.3 [d]	0.3 [d]
United Kingdom [e]	1.4 [b]	..	..
Norway [c]	1.5	1.2	2.0
Spain	1.5	0.5	0.8
Greece	1.5	0.8	1.3
Portugal	2.0	0.4	1.0
United States	0.2	3.5	0.8

Sources : International Railway Statistics, Paris, and national statistics.

NOTE. — Because of the difficulties involved in producing comparable figures and in making due allowance for the varying degree of vertical integration of the railways, the information given in the table should be taken to represent orders of magnitude only, and no conclusions should be drawn from minor differences between countries. For the calculation of units of traffic, see note to Table 13. Expenses for renewals and pensions, as well as staff working on renewals, have been excluded throughout except where otherwise stated. The figures for salaries cover average earnings (including social insurance contributions, but not pensions) of the whole staff, converted into dollars at official exchange rates.

[a] The countries are arranged roughly in ascending order of use of labour per unit of traffic.

[b] Employees include personnel employed on renewals.

[c] Figures refer to 1953/54.

[d] Figures refer to 1953.

[e] Excluding Northern Ireland.

[f] At the official rate of exchange of 6.80 leva = 1 U.S. dollar.

In Italy, as well as in the Netherlands, the high productivity of labour, together with relatively low wages, result in costs per unit of traffic lower than in other European countries. In France and Sweden, on the other hand, the high output per man is offset by exceptionally high money earnings, but in Sweden total operating costs nevertheless remain lower than in countries where high money earnings go together with old-fashioned equipment and low output per man.

The information that is available for average costs of goods transport by road (Table 15) is much less comprehensive and systematic and does not allow an analysis similar to the one made of railway costs above.[9] The figures given in Table 15 for Italy and Sweden do, however, illustrate the very large differences both in the level and in the structure of costs between large and small lorries. In both countries the costs per ton-kilometre for the heaviest vehicles are about one-fifth of the costs for the small lorries. The costs per ton-kilometre for lorries of the heaviest type for which data are given seem to be somewhat below 3 U.S. cents in Sweden and Italy[10] (1954), while those for heavy trailer combinations in Italy were about one-third lower. A French inquiry into road transport tariffs for journeys of about 300 kilometres in 1955 showed that the costs to the carriers must have been between 1.5 and 3.0 U.S. cents per ton-kilometre, depending on the products and the quantity shipped.[11]

Nearly all cost items are lower per ton-kilometre for the heavy lorries, but the main difference is in the saving on labour. The cost of the driver seems to account for around one-third of total costs for the average-sized lorry but for only 20 to 25 per cent of the total for the largest vehicles. Labour costs thus account for a smaller share of the cost of goods transport by heavy lorry than of the cost of rail transport. This is, of course, partly because road transport

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[9] The large differences in order of magnitude of the figures in the column " other expenses " show, for instance, that there are considerable variations in the coverage of the statistics.

[10] The Italian figures for total costs in Table 15 are probably somewhat understated because of the apparently much smaller coverage in the column " other costs " than for the other countries, and perhaps also as a result of an overestimation of the performance of the lorries in ton-kilometres.

[11] The French figures are based on a special inquiry in the Paris-Metz-Nancy regions. See *Transports*, September-October 1956, pp. 319-329.

TABLE 15

Estimated costs per ton-kilometre of goods transport by road

Country and size of lorry or type of transport	Fuel and lubricants	Tyres	Driver	Circulation tax and insurance	Maintenance	Depreciation and interest	Other	Total
	Percentage of total costs							*U.S. cents*
Italy 1954								
Average	28	7	34	5	8	16	2	3.8
Below 2 tons	23	2	44	4	7	16	4	9.0
2 to 5 tons	29	6	32	3	10	18	2	4.3
Above 5 tons	34	10	21	8	10	16	1	2.7
With trailer (medium)	30	10	28	8	9	14	1	2.4
With trailer (heavy)	34	16	19	7	8	15	1	1.8
Denmark 1953								
Average	21	6	36	6	12	[a]	9	..
Sweden 1956								
2.75 tons	19	4	35	6	15	14	7	16.2
8.5 tons	25	11	23	10	15	10	6	2.8
Western Germany [b] 1950								
Short-distance	29		26	10	7	11	17	..
Long-distance	28		25	13	6	12	16	..
United Kingdom 1950								
Average	19	5	32	7	15	11	11	5.6
Soviet Union 1954								
Average	16	2	23	..	18	16	25	20 [c]
	Index numbers—average for all lorries = 100							
Italy 1954								
Below 2 tons	196	63	304	182	207	235	364	235
2 to 5 tons	118	110	106	79	135	125	78	113
Above 5 tons	87	108	44	116	88	72	38	71
With trailer (medium)	68	94	51	108	69	55	27	63
With trailer (heavy)	57	111	25	68	43	41	15	45
Denmark 1953								
Own account	151	130	..	139	168	..	179	..
Professional	56	75	..	64	42	..	32	..
	Index numbers—lorry of 2.75 tons = 100							
Sweden 1956								
8.5 tons	22	48	12	32	16	13	13	17

Sources and methods : See Appendix B.

NOTE. — Because of the difficulties involved in producing comparable figures, the information given in the table should be taken to represent orders of magnitude only.

[a] Costs of depreciation and interest are not covered in the Danish investigation, but have been assumed equal to 10 per cent of total costs in the calculation of the other percentages.

[b] Figures refer to road transport enterprises with an annual turnover of more than 250,000 marks. Short-distance transport is all traffic within a distance of 50 km. from the place where the vehicle is stationed.

[c] At the official rate of exchange of 4 roubles = 1 U.S. dollar.

undertakings—in contrast with the majority of the railways—do not generally undertake the heavy repairs of their rolling stock or any work on track. It nevertheless implies that over-all increases in the wage level will tend to improve the competitive position of road traffic in relation to the railways, unless it is accompanied by more rapid increases in labour productivity in the railways than in the road transport enterprises. Therefore, rationalization designed to reduce the amount of labour utilized in railway operation is the most appropriate way of achieving a significant reduction of costs.

The big lorries obtain their relatively low costs per ton-kilometre of goods transported partly because costs per vehicle-kilometre do not increase proportionately with the size of the vehicle, so that costs per

TABLE 16

Estimated utilization of lorries in selected countries

	Number	Ton-km.	Ton-km. per lorry per year	Average haul
	Percentages		(Thousands)	(Kilometres)
Italy (1954)				
Below 2½ tons	71	15	20	45
Between 2½ and 5 tons	19	19	94	62
Over 5 tons [a]	10	66	610	136
TOTAL	100	100	94	88
Western Germany (1952)				
Below 2 tons	57	8	5	30
From 2 to less than 5 tons	34	29	35	22
5 tons and over [a]	9	63	281	58
TOTAL	100	100	41	38
Denmark [b] (1953)				
Up to 2 tons	60	13	7	..
Over 2 and up to 5 tons	34	55	52	..
Over 5 tons	6	32	166	..
TOTAL	100	100	32	20
United Kingdom (1952)				
Up to 2 tons	58	6	3	13
Over 2 and up to 5 tons	33	53	49	28
Over 5 tons	9	41	138	56
TOTAL	100	100	30	34

Sources and methods : See Appendix B.

NOTE. — The break-down by size of lorry refers to carrying capacity. For the United Kingdom the carrying capacity has been estimated on the basis of data on unladen weight.

[a] Including trailer combinations.

[b] Excluding 11,000 lorries and vans used for agriculture, market gardening and forestry.

ton-kilometre over the same distance are lower for big lorries than for small ones, and partly because their capacity in terms of ton-kilometres per vehicle is much better utilized (Table 16). The heavy lorries are generally used on longer hauls than the small ones and therefore expend a much smaller share of their total operating time on loading and unloading operations.

It is clear from what has been said above that restrictions on the weight and size of lorries have an important influence on costs. The restrictions are generally inspired by the needs of road safety or made necessary by the quality of the existing roads and the cost of improving them; but the question may be raised whether sometimes the purpose is not also to protect the railways from increasing competition from road transport or to protect the country's own road transport undertakings. In addition, costs of road transport are influenced by limitations on speed and by various regulations relating to working hours, obligatory rest periods and minimum crew, inspired by social considerations as well as by those of safety on the roads. It is probably no coincidence that Italy, where such regulations are hardly applied, and where restrictions on size and weight of lorries are very lenient, is among the countries where road transport has grown most rapidly.

Efficiency in the Use of Equipment

Comparisons between the costs of different means of transport cannot be made simply by comparing costs or prices paid per passenger-kilometre or per ton-kilometre. The speed of transport and the quality of the service performed are also factors of importance for the competitive position of the different types of carriers. The improvement in speed and in quality of service which can be obtained is among the arguments most often invoked in favour of railway modernization. Consideration of speed is no doubt very important in the case of passenger traffic, especially when the distances in inter-city traffic are such that competition is between rail and road traffic and not with air traffic. For goods traffic, however, the speed of the transport service is decided mainly by factors other than the speed of the trains.

The relatively small influence of faster traction on the speed of the whole process of goods transport by rail stems from the fact that the handling of traffic in the stations, loading, unloading and shunting operations take, on average, much more time than the movement of trains between stations. The result is frequently not only that the transport takes a longer time, but also that the utilization of the railway equipment is lower—and hence the cost of rail transport is higher—than it could be with faster terminal and intermediate services.

The delay of the wagon caused by loading, unloading and marshalling operations depends partly on the technical efficiency of freight and wagon handling and partly on the established practices of the railway administrations and their customers. The importance of these factors for the utilization of freight wagons and the speed of transport operations is very great. The average haul of freight transport by rail in most European countries varies only between 100 and 250 kilometres (Table 6), but the average time taken from when a wagon is loaded until it can be loaded afresh varies between 4 and 12 days (Table 17). The very high average turn-round time shown in some countries may be partly associated with the necessity of keeping a surplus of equipment to use in periods of peak traffic; but it is due essentially to the practice of keeping wagons standing on sidings—private or otherwise—by firms which are short of storage space or of labour for loading and unloading, and by operations at marshalling yards. The average daily

TABLE 17

Utilization of railway equipment in 1954

Country [a]	Wagons			Passenger carriages		Locomotives
	Ton-km. per ton capacity		Turn-round time	Passenger-km. per passenger seat		Unit-km. [b] per H.P.
	Thousands	Percentage increase since 1930	Days	Thousands	Percentage increase since 1930	Thousands
Turkey	11	..	..	61	..	..
Finland	10	101	..	28	33	9.1
Austria	9	25	5.5	27	113	4.9
Sweden	9	72	5.8 [c]	23	83	..
Yugoslavia	8	133	4.3	34	127	10.1
Western Germany [c]	8	88	5.5	26	136	4.7
Switzerland	8	4	2.9 [c]	21	71	4.7 [d]
Netherlands	7 [e]	..	4.4	72	289	7.7
Norway	7	40	7.3	23	138	4.6
Spain [c]	6	..	..	34	..	2.9
Luxembourg	6	..	2.4	15	..	4.2
Italy	5	30	12.5 [c]	33	157	4.4
Denmark	5	52	5.8 [c]	23	145	7.0 [c]
Portugal	5	−10	..	23	105	..
France	5	14	11.8	20	35	3.4
Belgium	4	−13	7.7	21	48	3.9
Greece [c]	3	77	..	55	172	3.3
United Kingdom [f]	2	12	12.0	13	13	..
Hungary	..	..	3.0	..	..	..
Rumania	..	..	4.3 [g]	..	..	..
Poland	..	..	5.2	..	..	..
Soviet Union	..	..	6.7	..	..	..

Sources: International Railway Statistics, Paris, and national statistics.

NOTE. — Figures for turn-round time may not be strictly comparable between the eastern and western European countries. For the western European countries the average turn-round time has been calculated by the secretariat on the basis of the *total* wagon park (including privately owned wagons) plus the net balance of wagons exchanged with other railway systems. Data shown for Hungary, Rumania, Poland and the Soviet Union, however, are official figures and may exclude wagons under or awaiting repair or not currently used in traffic. Private railway systems are included where important, with the exceptions mentioned below. 1930 figures relate to pre-war territory.

[a] In descending order of utilization of wagons.
[b] Unit-km. have been calculated on the basis of 1 passenger-km. = 1 ton-km.
[c] National railways only.
[d] Swiss Federal Railways and Bern-Lœtschberg-Simplon Railway only.
[e] Excluding less than wagon-load traffic.
[f] Excluding Northern Ireland.
[g] 1955.

movement of wagons under load (derived by dividing the average length of the haul by the average turn-round time) is only 10 kilometres in the United Kingdom, about 20 kilometres in France and Italy and between 30 and 40 kilometres in western Germany, Switzerland, Austria, the Netherlands and Denmark. In eastern Europe and Yugoslavia, on the other hand, it is between 40 and 50 kilometres and in the Soviet Union it is over 110 kilometres.

By and large, the highest daily movement of railway wagons under load is found in countries where investment in wagons has been kept low and where the volume of traffic has grown rapidly. This is the case particularly in all the eastern European countries and the Soviet Union. In these countries, the wagon shortage has been so serious that railway administrations have had to ensure that no more than the minimum time is spent in the loading and unloading operations even on Sundays, and that wagons are kept on the move.[12]

By contrast, the use of railway wagons as storage space by shippers or by their customers bears the main responsibility for the bad average turn-round time

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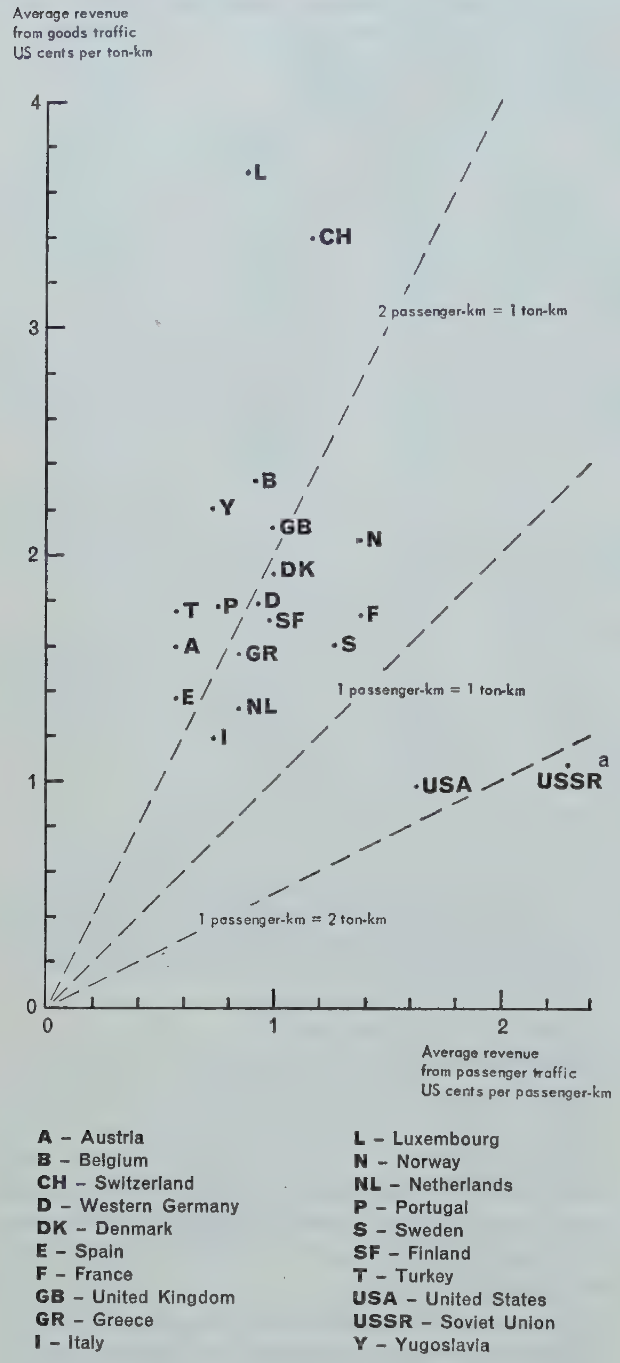
[12] However, even in the Soviet Union, where the average daily movement of the wagons under load is highest, nearly two-thirds of the wagon turn-round time is taken up in the loading, unloading and marshalling operations, as shown by the following figures of the average time (in days) used for various operations:

Movement	1.4
Immobile at intermediate stops	0.7
Immobile at technical stations	2.7
Immobile in loading and unloading	2.0

Source: T. Khachaturov, *Voprosy Ekonomiki*, No. 3, 1956, p. 96.

CHART 2

Average prices paid for railway transport in 1954



Sources : International Railway Statistics, Paris, and national statistic.

[a] At the official rate of exchange of 4 roubles = 1 US dollar.

of wagons in many western European countries. It should be noted, however, that the figures given above are averages, and that wagons used on shuttle services hauled by single trains without intermediate marshalling operations, and loaded and unloaded quickly by mechanical handling at terminals, have far better performances ; for instance, 10,000 privately owned wagons (controlled by the *Société de gérance des wagons de grande capacité*), representing only 3 per cent of the French wagons, carry annually 20 per cent of all the tons transported by the French railways.

The average wagon-load in western European countries is approximately two-thirds of wagon capacity. It varies considerably between countries, however, depending to some extent on the nature of the goods loaded and on other factors, but also on the incentive given by the tariff system to full utilization of the available capacity. In the United Kingdom, where the utilization of the railway rolling stock is by far the lowest in Europe, the fifteen-year plan for modernization and re-equipment provides for large investments in more rapid tractive power and in adapting the wagon stock, rail network and signalling equipment to the needs of faster movement. These investments, however, are not expected to raise the daily movements of wagons under load by more than a third, unless transport users collaborate in reducing the time during which wagons are held up at terminals; and even in 1970 the efficiency of utilization of the freight rolling stock in the United Kingdom may remain lower than it is at the present time in many other European countries.

The fact that freight wagons are immobilized between 75 and 90 per cent of the time in all western European countries adds, of course, to the capital costs of the railways. The rate of utilization of the equipment is, however, of still greater importance to the costs of passenger traffic, because the costs of equipment are much larger. While the prices of goods rolling stock come to about $200 per ton of loading capacity (excluding the tractive unit) the prices for passenger rolling stock vary from $1,200 per passenger seat for second-class coaches to $5,000 for sleeping cars. By assuming average rates of utilization corresponding to those given in Table 17, one arrives at the result that capital cost for passenger carriages amounts to around 0.25 U.S. cents per passenger-kilometre, while that for goods wagons is only about half this figure. It can be seen from Chart 2 that the typical revenue per passenger-kilometre is around two-thirds to one U.S. cent, and that per ton-kilometre around one-and-a-half to two U.S. cents, in western European countries. Capital costs of the passenger carriages alone thus correspond, in most cases, to between one-fourth and one-third of total revenue from passenger traffic, while the corresponding percentage for goods traffic seems to be only between 5 and 10 per cent.

The high capital costs of the passenger rolling stock are also a factor that puts passenger traffic by rail at a disadvantage compared with passenger traffic by road. While the capital costs per ton of loading capacity are about the same for goods wagons and for lorries (including in both cases the appropriate share of the power unit) the capital cost of railway passenger rolling stock[13] per seat is five times as high as that of buses.[14]

Although the average haul of lorry traffic is much shorter than that of rail traffic, lorries are immobilized by loading and unloading operations for a much smaller part of the total operating time than are wagons. The quick turn-round time of the lorries is due primarily to the impossibility of keeping the drivers of the lorries waiting. A comparison between wagons and lorries is given in the figures below, which should however be taken to represent orders of magnitude only owing to the lack of precise and comparable statistics.

Estimated Utilization of Capacity of Lorries and Railway Wagons in 1954

	1,000 ton-kilometres per ton capacity per year		*Average haul in kilometres including short-distance traffic*	
	Lorry	*Wagon*	*Lorry*	*Wagon*
Italy	28–30	5	88	263
Western Germany	12–13	8	38	189
Sweden.	13–14	9	16	230
United Kingdom	11–12	2	34	117
France	9–10[a]	5	25	246

Sources and methods : See Appendix B.

[a] Very crude estimate.

The figures in the table above are all the more remarkable because they tend to understate to a very large extent the degree of utilization of those lorries which compete with the railways, since they include small lorries performing only delivery and collection services. Heavy lorries with trailer combinations are used in Italy and western Germany about eight to ten times more intensively than railway wagons per ton of loading capacity. In Italy heavy vehicles carry a total volume of goods traffic which is a third higher than the total freight transport by rail in terms of ton-kilometres.

While the average utilization of railway wagons is considerably higher in eastern Europe and the Soviet Union than in most of the western European countries, the comparison in the case of lorries is in favour of western European countries. The average annual performance per lorry is about 33 thousand ton-kilometres in the western countries for which information is available. For Poland, however, it is no higher than 15 thousand ton-kilometres and in the Soviet Union the transport performance per lorry does not seem to be much higher.[15] To some extent this may be due to the bad state of the roads and insufficient vehicle repair facilities,[16] but it mainly reflects the different tasks assigned to road transport in various parts of Europe. In the Soviet Union, for instance, the average haul of road motor transport in both large and small transport enterprises amounts to only 10 to 11 kilometres. This figure shows that the lorry does little more than substitute for the horse-drawn wagon in delivering goods to or from the nearest rail-head and in providing other local delivery services. In view of the heavy strain on railways in the Soviet Union and eastern Europe the question may be raised whether a transfer of a part of the relatively short-distance rail transport to lorries could not relieve the pressure on the whole transport system.

Railway Deficits and Taxation of Road Traffic

It is well known that nearly all railway systems in western and southern Europe have to rely on subsidies in order to cover their costs. The overall railway deficits shown in Table 18 give, however, in many cases a distorted picture of the economic position of the railways because the amounts set aside for depreciation and capital charges bear little or no relation to reinvestment costs. Previous inflation is only one of a number of reasons why the sums set aside are generally below what would be required if amortization were provided for at replacement cost.

A somewhat better idea of the real position may be obtained by comparing the surplus or deficit on operating account given in column 5 of the same table with the actual expenditure on gross investment in column 6. It should be noted that, since the expenses for pensions to retired railway personnel vary considerably between countries, depending on the labour policy followed by the railways and the fortuitous way in which the pension schemes are financed, expenditure on pensions has been excluded from the operating account and shown separately. Even so, in nearly half

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[13] Apart from light motor rail cars, which are more similar to motor coaches than to traditional railway rolling stock.

[14] Moreover, it weighs five times as much, while for freight rolling stock the weight per ton of capacity is about the same, in rail as in road transport.

[15] In an article entitled " Towards a Better Utilization of Automobile Transport " by A. Taranov, it was stated: " The extent of the great reserves in the capacity of the automobile transport can be seen from the work done per lorry. This varies from 8 to 30 thousand ton-kilometres in different ministries and enterprises . . . In 1950, the transport work of each lorry amounted to 5–6 thousand tons and 30–38 thousand ton-kilometres in the large transport enterprises and 1–2 thousand tons and 8–20 thousand ton-kilometres in the small ones " (*Planovoye Khozyaistvo*, No. 8, 1951, pp. 57, 60). Since 1950, the productivity of the lorries has increased by 19 per cent according to the Gosplan announcement of 25 April 1956 on the fulfilment of the Fifth Five-year Plan.

[16] In a recent article A. Galitski stated that as many as 400,000 Soviet lorries are normally either undergoing or awaiting repair. *Planovoye Khozyaistvo*, No. 3, 1956, p. 55. According to the studies of the All-Union Scientific Institute for Roads the annual losses from bad roads amounted to several billions of roubles. (T. Khachaturov, *Voprosy Ekonomiki*, No. 3, 1956, pp. 93–94).

TABLE 18

Revenue and expenditure of railways in western European countries, average of years 1952-1954

Country [a]	Total revenue	Total expenditure	Over-all surplus or deficit	Operating expenses [b]	Operating surplus or deficit [b]	Gross investment	Pensions
	Millions of dollars		Percentage of expenditure	Millions of dollars	Percentage of operating expenses		
Netherlands	99	98	*1*	69	*43*	..	*2*
Italy	305	397	*−23*	325	*−11*	*19*	*15*
Austria	148	189	*−22*	116	*16*	*34*	*32*
Sweden	228	236	*−3*	167	*35*	*31*	*17*
Belgium	227	234	*−3*	152	*37*	*45*	*35*
Spain	146	173	*−16*	159	*−11*	..	*2*
Western Germany	1 234	1 440	*−14*	941	*22*	*23* [c]	*20*
Portugal	23	27	*−16*	25	*−7*	*8*	*2*
Switzerland	175	173	*1*	119 [d]	*36* [d]	*23*	..
Finland	103	101	*2*	93	*8*	*38* [c]	*7*
Denmark	63	74	*−14*	63	*−8*	*20*	*2*
Greece [c]	..	..	..	18	*−30*	*10*	..
France	1 400	1 536	*−9*	1 141	*−3*	*39*	*17*
United Kingdom [e]	1 176	[f]	[f]	1 091 [g]	*7* [g]	*14*	..
Bulgaria [h]	202	172	*17*	128 [i]	*57* [i]	*26* [j]	*5*
Luxembourg	25	25	*1*	16	*41*	*25*	*36*
Norway	51	61	*−18*	55	*− 9*	*47*	*1*

Sources : International Railway Statistics, Paris, and national statistics; for gross investment see Appendix 8.

NOTE. — The figures given in the table for total revenue, total expenditure and over-all surplus or deficit are not comparable between countries, because of the important differences in the way in which revenue not related to traffic and interest and capital charges are recorded.

[a] In ascending order of operating expenses per unit of traffic in 1954.

[b] Operating expenses exclude pensions and renewals; operating revenue excludes revenue not related to traffic.

[c] Average of 1953 and 1954 only.

[d] Including pensions.

[e] Excluding Northern Ireland.

[f] Figures for total expenditure and surplus are available for the British Transport Commission as a whole, but not for the railways alone.

[g] Including pensions and renewals.

[h] At the official rate of exchange of 6.80 leva = 1 U.S. dollar; 1954 only.

[i] Including depreciation.

[j] Renewals only.

the countries railways have operating deficits, so that obviously there is no surplus for either their reinvestments or their pension payments. But, in addition, some of the railways which do have operating surpluses have too narrow a margin either to cover current investment costs or to make reasonable provision for necessary renewals over a longer period.

Sweden, Switzerland and the three Benelux countries are the only ones where the railways seem to have a comfortable margin of revenue over operating costs. All of these countries, except Sweden, have considerable revenues from transit traffic, and in Switzerland and Luxembourg the average revenue per ton-kilometre for goods transport is twice as high as in other European countries (see Chart 2). In most western European countries the average revenue per ton-kilometre was one-and-a-half to two U.S. cents in 1954 as mentioned above. However, the Netherlands railways, as a result of low costs and large revenues from a very dense passenger traffic, have been able to charge somewhat lower prices for freight transport, and to accept a considerably lower average revenue from this traffic, without running into deficit. Italian railways, too, have very low average revenues from goods traffic owing mainly to the diversion to road traffic of some high-rated goods and to some particularly low tariffs granted in order to subsidize agriculture or particular industries and regions. As a result, the Italian railway system, in spite of its fairly low average costs, shows one of the largest deficits in Europe. An attempt has just been made, in September 1956, to improve the situation by considerable increases in rates.

There is little information available about costs of railway transport in eastern Europe; but railway policy is based, as in the Soviet Union, on the principle that railway rates should cover the full costs of the railways. In the Soviet Union railway costs are low, and the average revenue per ton-kilometre for goods transport (measured at the official exchange rate between the rouble and the dollar) is lower than in any European country. The main reasons for the low costs per ton-kilometre of goods transport in the Soviet Union are the very long hauls, the larger loading gauge and the extremely high degree of utilization of both network and equipment. Moreover, passenger traffic seems to cover its overhead costs to a larger extent than in western European countries, since rates for passenger traffic are much higher in relation to rates for goods traffic.

It is impossible to make a clear distinction between expenditure on account of passenger traffic and that attributable to goods traffic on the railways. Track cost, expenditure on signalling, much of the expenses in stations, certain expenses for traction and most of the capital costs are common to goods and passenger traffic. Costs of loading, unloading and other freight handling together with marshalling costs, are peculiar to goods traffic and the estimates for marshalling costs only seem to range between 10 and 35 per cent of total costs of freight traffic.[17] On the other hand, capital costs on rolling stock are, as shown above, much larger for passenger traffic than for goods traffic, and this is also true of maintenance of rolling stock.

The relative importance of the specific costs for goods and for passenger traffic, respectively, differs from country to country according to the relative importance of the two types of traffic, the degree of utilization of the two types of equipment and a number of other factors. It is therefore not possible to pass any general judgement as to how far the specific costs per passenger-kilometre are generally lower or higher than those per ton-kilometre, nor whether it is reasonable to allocate common costs with the same amount per passenger-kilometre and per ton-kilometre.[18] It is highly improbable, however, that the specific costs per passenger-kilometre should be half or less than half of those per ton-kilometre. As can be seen from Chart 2, however, this is the relation between the revenue per passenger-kilometre and the revenue per ton-kilometre in a large number of western and southern European countries. It seems, therefore, that in many countries passenger traffic is either subsidized by goods traffic or is responsible for most or all of the railway deficits.

It is often argued that one of the reasons why the railways in western Europe are losing traffic to the roads is that the railways, in contrast with road transport, have to pay for their track costs. It was shown above that in actual fact there are very few western European countries where the users of the railways pay the total costs of the railways (although goods traffic may pay its full share). The estimates given below, covering the average for the years 1952-1954, illustrate the extent to which road traffic as a whole pays its track costs by way of taxes on vehicles, fuel and motor transport.

	Estimated taxation (including taxes on motor-cycles)	*Expenditure on roads (gross investment plus maintenance)*	*Estimated taxation (excluding taxes on motor-cycles)*	*Expenditure on roads (gross investment plus maintenance)*
	Millions of dollars		*Dollars per motor vehicle (excluding motor-cycles)*	
Italy	310	230	310	246
Finland	33	86	290	788
United Kingdom	1 055 [a]	333	260	83
Belgium	138	75–80	260	143–153
Netherlands . .	76	. .	250	. .
Denmark . . .	64	46	250	187
Western Germany	435	387	240	220
Sweden	135	131	240	239
Switzerland . . .	57	61	210	237
Norway	35	43	200	244
Austria	27	60	190	451
France	575	488	160	140

Sources and methods : See Appendix B.

NOTE. — The figures for taxes are partly estimated; they include annual taxes on vehicles, purchase tax, transport taxes, customs duties on vehicles and parts and taxes on fuel.

[a] Of which purchase tax, 213 million dollars.

The figures give an impression of the varying degree to which motor vehicles as a whole pay their track costs. In some countries all the taxes paid by motor vehicles, including transport taxes, purchase tax and customs duties, amounted to less than expenditure on roads although this latter item covers only gross investment and maintenance but not the cost of traffic police, street lighting, etc.[19] There are few countries where taxes on road traffic, after covering expenditure on roads, contributed to general tax income to any significant degree, and among these Italy was the only one where this was due to a particularly high level of taxation per vehicle; in the United Kingdom the surplus was mainly due to the low level of expenditure on roads in the period covered by the table.

It has not been possible to split road traffic taxation by types of motor vehicles or to attribute road investment and maintenance costs to different types of user; but, as far as can be judged from the information available, there seems to be a general tendency for passenger cars to pay a larger share of total motor vehicle taxation than the share of total road expenditure which may be attributed to them—not an unexpected conclusion, since the case is much stronger for a general tax on passenger cars than for a tax on commercial vehicles. The tendency for passenger cars to pay relatively more taxes than do commercial vehicles implies, however, that commercial vehicles may not be paying their full track costs, except perhaps in the few countries which show a substantial overall surplus of taxes over road expenses.

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[17] The latter figure refers to western Germany, the former to the Soviet Union where the number of junctions and sidings is much smaller in relation to the average haul of goods traffic than in western European countries.

[18] It can be seen from the chart that, in contrast with the situation in western European countries, revenues per passenger-kilometre, not only in the Soviet Union but also in the United States, are about twice as high as revenues per ton-kilometre. Costs per ton-kilometre of goods transport in the United States are, however, relatively low for reasons similar to those mentioned above for the Soviet Union, but it is unanimously considered that receipts of passenger traffic in the United States do not even cover the specific costs of this traffic and many railway companies have asked permission to raise passenger fares.

[19] There are, of course, other road users than motor vehicles, particularly on local roads, but in the countries listed above these account for a very small share of total traffic and the share of total road expenditure which can reasonably be attributed to them is still smaller.

For roads, as for the railway network, there are conflicting views as to whether the users should pay fully for the services they receive or should have access to them freely or at reduced prices. The first point of view is, however, gaining ground, partly because it is desired to provide fair conditions of competition between various means of transport and partly because it is felt that the relatively well-off group of private motorists should at least pay the full costs of the benefits they obtain from their extensive use of the road network.

It is often argued that only maintenance, but not investment costs, should be taken into consideration in the calculation of prices for utilization of the transport network, be it rail, road or waterways, because once the investments are made it is most economical to secure maximum utilization of the existing capacity. It is, however, doubtful whether this principle should be applied to means of transport for which a rapid and steady increase in capacity utilization can be foreseen even if the users have to pay the full costs. In such cases the result of letting them pay less is only to bring the day nearer when new and perhaps still more costly improvements and enlargements of the network have to be undertaken.

There is, however, another very important argument for letting the users pay fully for the utilization of the transport network. Virtually all investments in the European transport network are public investments subject to political decisions and, therefore, a playground for sectional economic interests and local pressure groups. The influence of such pressure groups becomes much more dangerous if it is known that the investment, once undertaken, will be paid for not by the individual user, and not even by the town or region which will benefit from it, but by taxpayers in general.

The idea that the costs of the transport network should be paid not by the users but by taxpayers in general, is often defended by reference to the public interest in supporting and developing poor regions; and if transport policy is based on the principle that the users should pay, some deviations from the basic principle in favour of such regions may be unavoidable. In actual practice, however, such deviations are very often made in favour of wealthy and highly industrialized regions—for instance, state support for the construction or operation of underground railways, suburban highways and similar investments which benefit almost exclusively the local populations in these places. Measures that make it possible for the inhabitants and enterprises in congested areas to avoid paying the costs of the congestion tend only to conceal the true costs of production and the true cost of living in different localities, and thus tend to counteract the measures taken to decentralize industry and prevent further concentration of the population.

Differences in Costs of Goods Transport by Rail and Road

The difficulties of evaluating the degree to which lorries and freight trains respectively pay their track costs, and of distributing railway costs between passenger and freight traffic, prevent any precise comparison of costs of railway and long-distance road goods transport in western Europe. Nevertheless, the information about costs of road and rail transport given above may provide a general impression of the order of magnitude of the discrepancies in average costs. It was shown above that costs of long-distance road transport on heavy lorries in the few European countries for which information is available seem to have been about 2 to 3 U.S. cents per ton-kilometre in recent years, and if road costs could be included instead of lorry taxation the range would probably remain the same.

If operating costs per unit-kilometre are taken as a rough expression for operating costs per ton-kilometre, the 1954 average for western European railways—admittedly very untypical—is around one-and-a-half U.S. cents. To this should be added an allowance for capital costs which, judged from the information given in Table 18 (column 6) and Table 10, could not reasonably be set lower than 20 per cent.

Rail traffic predominantly consists of low-cost regular bulk shipments of commodities such as coal and ore, which are transported, at considerably lower costs than other products, mainly between private sidings thus avoiding costs of trans-shipment. It may well be, therefore, that average costs of rail transport for other products are not very different from costs of modern road transport even over long distances and then it should be noted that differences in the quality of the service do not enter into this calculation.

The attempt made above to arrive at a rough idea of the order of magnitude of costs of goods transport by rail and by road in western Europe is not only hazardous because of the paucity of part of the information on which it is based, but it is moreover of limited significance because of the great differences in transport costs between the western European countries. The order of magnitude of differences in transport costs between various localities inside countries is, however, still larger, particularly on the side of the railways, as has already been mentioned. This regional problem together with the closely related questions of rate and taxation policy will be dealt with in the following chapter.

Chapter VI

LONG-TERM ASPECTS OF TRANSPORT POLICY

Transport policy is most often discussed within a very limited time perspective. The large amounts of capital needed and the extremely long life of investments in the transport network, as well as the influence of transport policy on industrial location and regional development, make it necessary that the problems of transport policy be seen also in a perspective of several decades and as an integral part of long-term economic policy. To provide the background for a discussion of the issues involved in such a policy, the following two sections consider, first, the prospective demands for European transport over the next several decades and, secondly, the influence of transport policy on regional development. A third section will then deal with the institutional factors which act as a deterrent to modernization of the transport system, and the chapter ends by pointing to the implications of the analysis for future investment policy.

1. Future Trends in the Volume of Traffic

Any attempt to forecast economic trends as a basis for policy decisions always encounters a major difficulty in that these trends themselves depend in part on the policy to be followed. Demand for different transport services is particularly difficult to forecast because of the decisive influence of policy measures both on the growth of the over-all volume of traffic and, still more, on the demand for the services of each particular means of transport.

Transport policy influences the volume of traffic partly through its influence on prices of transport services and partly through increases in demand for transport stimulated by improvements in facilities. Transport policy also influences industrial location in the longer run and this, in turn, gives rise to population movements, so that the demand for both goods and passenger transport is thereby changed. Moreover, other economic policies—ranging from general policies affecting the rate of over-all economic expansion to particular measures that facilitate or restrict the movements of goods over frontiers—may have a great influence on the volume of transport. The importance of the latter type of policy was demonstrated in the period after the opening of the common market for coal and steel among the members of the European Coal and Steel Community. The future volume of transport can be forecast only on the basis of explicit assumptions about those economic policies which directly and indirectly influence its growth.

No attempt will therefore be made here to arrive either at quantitative forecasts of the volume of transport at any future date or at any expected average rate of growth of the demand for transport. Such forecasts would in any case be of little use unless they went so far as to indicate different rates of growth for various countries in Europe and for various regions and traffic lines inside these countries.

Attention will instead be centred on the factors which are most important in determining the demand for various means of transport, and on the changes which these factors are likely to undergo in the next several decades.

Probable Trends of Passenger Traffic

Transport of passengers has been growing rapidly in Europe in recent years, and there is no doubt that it will continue to do so. But this does not necessarily mean that demand for commercial passenger transport services will continue to grow. In western European countries half or more of all passenger transport takes place in private cars and private motoring has in the past been growing much more quickly than commercial traffic, as can be seen from Table 1. In recent years the number of passenger cars has risen at annual rates of between 15 and 25 per cent in most western European countries. Although it is to be expected that this rate of increase will eventually slow down, it seems likely that, except in the event of war or economic recession, private motoring will continue to grow fast enough to have serious repercussions on the demand for both bus and rail services.

TABLE 1

Passenger traffic by road and rail in 1955

Country [a]	Passenger cars per thousand inhabitants		Motor-cycles per thousand inhabitants		Daily journeys by bus per thousand inhabitants		Daily journeys by railway per thousand inhabitants			Rail revenue from passenger traffic as percentage of total revenue from railway traffic
	Number	1950 = 100	Number	1950 = 100	Number	1950 = 100	Number	1950=100 Number	1950=100 Passenger-kilometres	
Sweden	88	*244*	40 [b]	*133* [b]	..	..	46	*78*	*90*	32 [c]
United Kingdom [d]	72	*151*	25	*165*	327 [h]	*101* [h]	55	*100*	*93*	37
France	69	*163*	79 [e]	..	..	..	32	*90*	*102*	33
Luxembourg	69	*216*	30	*191*	..	..	106	*108*	*108*	9
Switzerland	54	*174*	43	*269*	..	..	148	*99*	*105*	46
Belgium	50	*158*	..	..	..	..	67	*98*	*106*	34
Denmark	50	*180*	28	*248*	..	..	72	*104*	*92*	58 [i]
Western Germany	36	*287*	71	*250* [f]	63	*204*	85	*100*	*110*	29
Norway	36	*179*	18	*235*	..	..	33	*104*	*99*	43 [i]
Netherlands	25	*182*	60	*406*	81	*113*	47	*108*	*115*	56
Austria	21	*277*	43	*219*	54	..	64	*120*	*127*	22
Finland	20	*301*	13	*556*	..	..	24	*80*	*103*	23
Italy	18	*250*	55	*390*	20 [g]	*164* [g]	33	*104*	*107*	56 [i]
Portugal	10 [e]	*138* [e]	1 [e]	*187* [e]	..	..	17	*115*	*113*	48
Spain	4 [e]	*128* [e]	2 [e]	*343* [e]	..	..	11 [c]	*105* [c]	*108* [c]	31 [c]
Greece	2 [e]	*165* [e]	..	..	..	..	5	..	*151*	52 [e]
Turkey	1	*194*	0.4	*247*	..	..	7	*97*	*137*	24
Yugoslavia	0.7	*180*	0.7	*101*	5	*91*	26	*84*	*83*	19
Bulgaria	0.3 [e]	..	..	..	..	..	20 [e]	..	..	30 [e]
Czechoslovakia	..	..	..	..	..	..	122	..	..	..
E. Germany	..	..	..	..	51	*310*	155	*109*	*126*	..
Hungary	..	..	..	..	39	*466*	95	*136*	*137*	..
Poland	..	..	..	..	15	*187*	94	*135*	*124*	..
Soviet Union	..	..	..	..	..	..	23	*129*	*148*	23 [e]

Sources : International Railway Statistics, Paris, and national statistics.

NOTE. — *Rail traffic :* Private railways are included where important, Where the data cover more than one railway system in a country an estimate is made of the number of through journeys to exclude duplication in cases where this is thought to be important. *Bus traffic :* Excluding urban traffic.

[a] In so far as possible, in descending order of number of passenger cars per inhabitant.

[b] Heavy motor-cycles only.

[c] Excluding private railways.

[d] Excluding Northern Ireland.

[e] 1954.

[f] Estimate based on data with incomplete coverage.

[g] Including non-urban trolley buses.

[h] Includes some local traffic in small towns.

[i] 1954/55.

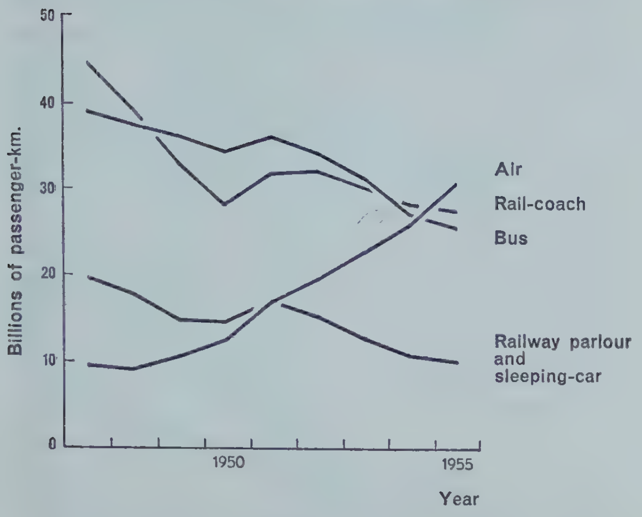
Air traffic in Europe has so far been too small to exert any significant influence on the volume of passenger travel by rail. In the United States, however, air traffic is the only form of commercial inter-city passenger traffic which has expanded recently (Chart 1). Although the increase in air traffic partly represents additional travelling, its rapid rise, together with the sharp increase in private motoring, has contributed to the declines in passenger traffic, both by rail and by bus.

In Europe, also, it is clear that air traffic will eventually replace a large part of the passenger traffic by rail over long distances; but, because of the high population density and short distances between towns in most of Europe, air services cannot compete for the bulk of passenger traffic by rail at least until technical improvements change the conditions for short-distance air travel. The short distances between towns, on the other hand, imply that the competitive position of railway passenger transport in relation to travel by private car will be weak, except perhaps for suburban traffic around towns with serious traffic congestion.

In most western European countries, receipts from passenger transport account for between one-third and one-half of the railways' revenue. Road traffic congestion in and around the big European cities will probably cause increases in traffic on modernized suburban lines; but it seems unlikely that the increases in national income in the next decades will bring to

CHART 1

Inter-city commercial transport of passengers in the United States, 1947-55



Source: Survey of Current Business, May 1956, p. 19.

most other railway lines in western Europe a sufficient number of new passengers to counterbalance the losses to road on the short and medium distances, and to air on some of the long journeys.[1] Although this may not occur within the next few years, revenue from passenger traffic may in the long run decline rather than increase, and this is probably going to happen whatever price policy the railways may choose to apply to passenger traffic.

It was mentioned in Chapter 5 that the average revenue from passenger traffic per passenger-kilometre seems to be far below average costs in some countries, and it is well known that the same is true in all countries for the lines which have sparse traffic. On the secondary lines with sparse traffic, a raising of the non-remunerative rates would hasten the process of substitution of road for rail and bring nearer the day when the lines would have to be closed down, either for passengers alone or for all traffic. The profitability of any investments made on these lines with a view to increasing the facilities offered to travellers would be very doubtful. In this connexion, it should be noted that buses have the advantage over normal rail passenger equipment that their lifetime is shorter and the capital cost per passenger-seat much lower.

On the main lines, a raising of rates over long distances would probably not cause a proportionate loss of traffic and may be a means of raising total revenue for a number of years. In the longer run, however, the future of rail passenger transport does not appear to be bright even if the present policy of low passenger rates should be continued; and this has serious consequences with regard to the depreciation of investments which might be made now with the object of improving the speed and convenience of long-distance passenger travel by rail. Where such investments are undertaken, fares will therefore have to be fixed at levels that permit a relatively quick depreciation of that part of the investments which is specific to passenger traffic.

In southern Europe, the total volume of passenger travel is still very low, and is bound to increase considerably with future increases in national income. However, a considerable share of this increase will probably be in travel by road, particularly in areas ill-provided with railways; the profitability of railway investments undertaken primarily for passenger traffic is therefore as doubtful in those countries as on secondary lines in countries where the network is more developed. In most eastern European countries, rail passenger traffic is fairly heavy, partly because of lack of facilities for road transport and, at least in some of these countries, because of very low rates for rail passenger travel in relation to prices of other consumers' goods. Unless or until there is a change of policy in these two respects, passenger traffic by rail will probably continue to increase rapidly with further increases in population and national income.

Future Trends of Goods Traffic

Chart 2 depicts the trends in industrial output and in goods transport in a number of western European countries, the Soviet Union and the United States. The series show in nearly all cases a fairly close similarity in the long-term trends. Industrial production has generally expanded at about the same rate as the total volume of transport, except in the last decade, when production increased faster than the volume of transport. A slower rate of growth of transport is also observable in most eastern European countries, as can be seen from the figures below:

Ratio of Percentage Increase in Volume of Total Goods Transport to Percentage Increase in Industrial Production

	1950 to 1955 Actual	*1955 to 1960 Plan*
Czechoslovakia	1.00	0.68
Eastern Germany	0.71	0.60
Hungary	0.69	0.64
Poland	0.45	0.50
Soviet Union	0.75	0.72

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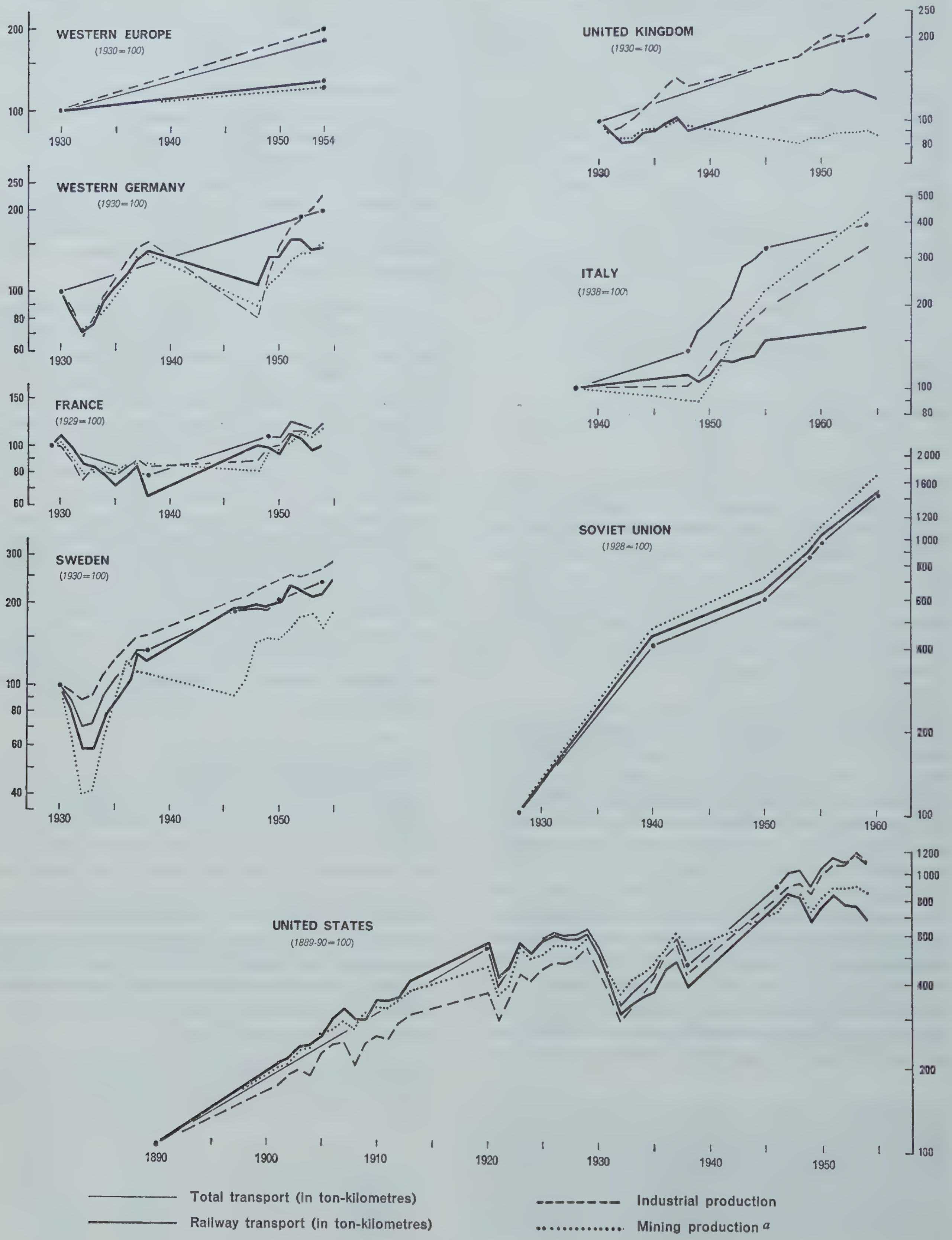
[1] Long-distance travel by rail on main lines between points where air services are either inconvenient or non-existent will, of course, continue to be patronized on a large scale by travellers who do not require their own motor vehicles at their destinations. But it may be safely assumed that tourists and other travellers needing or wanting to stop between their starting point and their final destination will prefer motoring to rail travel, mainly because of the greater flexibility in movement which motoring offers.

CHART 2

Long-term trends in industrial production and volume of goods transport

Index numbers *Semi-logarithmic scale*



Sources and methods : See Appendix B.

[a] For the Soviet Union, production of coal and iron ore only.

A part of this difference, observable in recent years in nearly all countries in Europe, is obviously due to the omission of the more slowly expanding agricultural output from the series used to measure commodity production,[2] but the main explanation of the lagging behind of transport lies in the marked changes which have taken place in the structure of industry. In the early stages of industrialization, mineral products such as coal and ores predominated in industrial output. With the further development of industry, many new products which have higher value in relation to their weight have come to occupy a more important place, and, at the same time, there have been progressive improvements in the utilization of raw materials and fuel. As a result, the weight of industrial input and output—and therefore the volume of transport in ton-kilometres—tends to rise more slowly than the index of industrial production.

In western Europe and the United States, rail transport has generally increased at a lower rate than total transport and has moved more in line with mining than with industrial output. Even if there were to be no further shift from rail to road within each commodity group, rail traffic in western Europe would continue to expand less than total traffic, because of its concentration on the more slowly expanding bulky products.

It would, of course, be unrealistic to assume that there will be no significant changes in western Europe in the distribution of the main commodities among the different means of transport. For many products the result will depend chiefly on the competitive positions of road and of rail transport with respect to the cost and quality of services provided. This is true not only of the very mixed group of manufactured goods, but also of such heavy products as building materials, a considerable share of which is already carried on the roads. In terms of volume, however, it is in most countries chiefly ores and fuels that matter (as has been seen in Chapter 5), and it is therefore of particular importance to consider the changes likely to affect the carriage of these heavy goods.

The western European steel industry is becoming more and more dependent on scrap and on imported ore and coal; and this, together with the fairly rapid expansion of the steel industry, has hitherto contributed to raise the volume of rail transport. Moreover, the volume of ore transported by rail is likely to continue to increase for the next decade at least. Looking farther ahead, however, the gradual exhaustion of the high-grade ore and coal deposits in Europe will tend to reduce the volume of rail traffic for the steel industries, since it will constitute an inducement to these industries to move from the old areas of easy access to local supplies of fuel and materials to sites where the imported materials can be delivered by relatively cheaper water transport, or alternatively it will stimulate the provision of water transport facilities for the steel industries in their present locations. There are recent examples of both these tendencies—for instance, the plans to install or expand steel-mills, based on sea transport of both ore and coal, in Bremen, in Dunkirk and in southern Italy, and the proposal to canalize the Moselle in order to make water transport available to French steel production in the Lorraine area.

It is, however, in the field of fuel transport that the most important changes can be expected. The transport of fuel—mostly coal—accounts for nearly half of the tonnage of goods transported by rail in the United Kingdom, western Germany and Poland, about 40 per cent in the Soviet Union, about 25 per cent in France, and 10 per cent or less in the Scandinavian countries. The relative importance of fuel transport shows a close correlation with the relative importance of coal in the national economies, as can be seen from Table 2.

In western Europe, coal production has increased in the past at a rate of about one-half of one per cent per annum, and the future increase is likely to be still slower. Nearly the whole increase in energy consumption over the next several decades will have to take the form of fuels other than coal, and little of this is likely to be transported by rail.

Oil consumption is going to increase very rapidly, but little of this increase will be reflected in the volume of rail transport. Already large quantities of oil are carried by inland waterways and in some countries by road. The rapid expansion in consumption will from now on be accompanied by construction of pipelines in those districts where the volume of oil transport is becoming heavy. In addition, improvements in the efficiency of coal utilization mean that an increasing share of coal output will be consumed in the form of electricity or gas, involving no rail transport, and the use of hydro-electricity and natural gas can also be expected to increase.

There has been some increase in rail transport of imported American coal in recent years; but, in general, changes in the transport of coal by rail have hitherto been closely associated with changes in domestic coal output.[3] This is clearly not going to be

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[2] For most of the countries included in Chart 2, series for total commodity production are not available for the period covered.

[3] This is illustrated by the indices for the United Kingdom, shown below:

Index numbers — 1913 = 100

	Output of hard coal	*Rail transport of fuel* (Tons loaded)
1920	80	80
1928	83	83
1938	79	77
1950	75	74
1954	78	77

Sources : O.E.E.C. Industrial Statistics, 1900–1955, Paris, and *Journal of the Institute of Transport*, November 1952.

TABLE 2

Rail transport of fuel and consumption of energy in 1954

Country[a]	Density of goods traffic per km. of line	Transport of fuel by rail		Coal consumption by branches					Coal as a share of energy consumption			
		In ton-km.	In tons loaded	Railways and shipping	Steel industry	Other industry	Thermal electricity	Households	Total energy consumption	Industry other than steel	Thermal electricity	Households
	Millions of ton-km.	*As a percentage of goods transport by rail*		*As a percentage of total coal consumption*					*Percentages*			
United Kingdom	1.2[b]	47[b, c]	61[b, c]	10	11	22	24	33	87	72	99	78
Netherlands	1.1	..	58	3	5	22	28	42	70	43	96	69
Western Germany	1.4	..	47[d]	10	14	27	17	32	88	68	98	78
Poland	1.8	44[d]	41[d]	14	—57—		15	14	96	..	98	90
Belgium	1.2	35	44	8	22	23	15	32	85	54	96	78
Soviet Union[e]	8.0	38	38	23	49–52—		20–23	5	63	..	78–82	..
France	1.0	26[d]	30[d]	9	20	26	15	30	64	49	82	68
Austria	1.0	..	25[d]	16	25	22	8	29	60	42	63	68
Italy	0.6	..	[f]	15	15	38	6	26	24	38	44	27
Denmark	0.3	..	10[d]	7	—31—		18	44	63	48	88	61
Sweden	0.6	7	9	8	—36—		3	53	21	19	..	36
Norway	0.3	..	2[d, g]	27	15	22	—	36	10	7	—	12

Sources and methods : See Appendix B.

[a] In descending order of the percentage share of fuel in total rail transport.

[b] Great Britain only.

[c] Coal and coke only.

[d] Excluding fuelwood.

[e] 1955.

[f] The percentage was 34 in 1948/49, but must have been considerably lower in 1954.

[g] Corresponding figure excluding the Ofoten railway (transit of Swedish ore for shipment at Narvik) would be 6.

the case in future. Technological improvements in very high tension electricity transmission will probably reduce the cost of electricity transmission in comparison with the cost of transporting coal, and the few existing very high tension lines are only a portent of the changes which, in the course of some decades, may permit a considerable increase in the share of thermal electricity generation which takes place at the pithead. The gasification of coal at the mine and transport of the gas by pipeline will perhaps contribute still more to reducing coal transport by rail, even if coal production continues to increase. Thus, a larger and larger share of coal production is likely to be consumed at the mine. Moreover, as atomic power stations are built near the main electricity consuming centres, their increasing output will reduce still further the need to transport coal to feed thermal plants.

The figures for coal consumption by sectors shown in Table 2 give an impression of what these future changes may imply for the railways in various countries. As shown in the table, about three-fourths of the coal consumed in western Europe is accounted for by households, thermal electricity generation and industries other than steel. These are the groups which at present receive most of their coal by rail, and which in the next few decades may be expected to shift a considerable part of their consumption either to secondary forms of energy or to forms of primary energy other than coal. In the Scandinavian countries and in Italy a large shift in this direction has already taken place, and the goods traffic on their railways is therefore much lower than in other countries whose economies are at a similar stage of industrialization but based more on direct consumption of coal.

Partly because of the shortage of coal and partly because of changes in the demand pattern, a similar shift in the pattern of energy consumption will have to take place in the United Kingdom, western Germany and Poland, countries in which the economy is still based mainly on direct consumption of coal. The shift in the pattern of their energy consumption in the next few decades will inevitably produce a continuing decline in the transport of coal by rail, possibly sufficiently pronounced to cause some decline also in the total volume of goods transport by rail.[4] It seems that transport policy in these countries should be based on this assumption if a waste of investment resources is to be avoided.

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[4] In 1954, the volume of goods transport by rail in the United Kingdom, in terms of tons loaded, was 23 per cent below, and in terms of ton-kilometres only 21 per cent above, the 1913 level. The British Transport Commission nevertheless bases its plan for the modernization and technical re-equipment of the British railways on the expectation of an increased volume of rail transport: " The normal trend of increased production should of itself assist the railways, and some of the ground that has been lost to other forms of transport over the past thirty years should be recovered. On balance, these increments of traffic should more than counterbalance any local falling-off in traffic that may follow changes in the pattern of industrial development, or the handing over to road of traffics that are better suited to road transport." *Modernization and Re-equipment of British Railways*, London, 1955, p. 8.

France and the Soviet Union are in an intermediate position with respect to the pattern of their energy consumption, but the information available on their plans for development of energy production [5] shows that they are both going to raise their consumption of mineral oil, natural gas and hydro-power much more than that of coal. In addition, a considerable length of pipeline for oil and gas transport will be constructed, and atomic energy will become an increasingly significant factor in future development. As a result, fuel transport by rail is likely to decline in France. However, in France—as well as in those countries where coal accounts for a still smaller share of total traffic—the decisive factor determining the future level of total goods traffic by rail will be the relative cost and efficiency of rail transport compared with those of transport by road.

Even in the Soviet Union, where a continued rapid expansion of coal production is planned, transport of coal by rail may nevertheless cease to grow—and may even start to decline in the not far distant future—because of changes in the pattern of energy consumption linked with changes in the location of industry. There has often been complaint in the Soviet Union about the strain put on the railways because, in some cases, coal and iron ore travel enormous distances by rail. This is partly a result of a policy of developing output where extraction costs were lowest, even though this implied large transport costs in bringing the two products together. Since policy in the Soviet Union, as well as in eastern Europe, now aims at eliminating transport over long distances where this can be done without raising the total costs of the final output, it may be expected that, in the longer run, transport will grow less rapidly in relation to industrial production than hitherto.

2. TRANSPORT POLICY AND THE LOCATION OF INDUSTRY

As has been shown above, there is reason to expect that many railways in western Europe may in the long run see a decline in their passenger traffic and in their transport of fuel; and each of these categories of traffic accounts for a considerable share of the total revenue of the railways. Since most western European railways operate already with large deficits, this implies that, unless the revenues from other goods traffic can be raised considerably, they will be forced to cut back their overhead costs and to discontinue or simplify operations on a large part of the network.

In this situation the competition of the lorries becomes a major preoccupation of the railways; and it is not surprising that in a number of countries restrictions on road goods traffic, commercial as well as own-account, are under discussion, and that the railways are demanding the right to revise their rates policies so as to compete with the lorries. One other aspect of the problem has to be kept in mind, however: both restrictions on road traffic and changes in the system of railway rates are bound to influence industrial location. It is necessary, therefore, to make sure that the measures taken to rationalize or help the railways do not cause undesirable changes in the pattern of industrial location and thus frustrate other efforts to promote decentralization.

Economists have not always agreed whether industrial decentralization, or other measures to promote the development of backward regions, should be recommended on purely economic grounds; but for a variety of other reasons—demographic, social, strategic, etc.—it is generally considered a disadvantage if the development of a country takes place in such a way that population and economic activities concentrate in one or a few regions, while the remaining parts of the territory fail to develop or even become depopulated.[6] Accordingly governments have, in a more or less systematic way, developed policies designed to counteract excessive congestion and to foster economic progress in backward regions. Transport rate policy is one instrument, among others, which is available for this purpose.

The building of railways was hailed as a means of spreading economic development over the territory; and the railways in Europe came to be treated as public utilities and were restrained from operating as purely commercial undertakings aiming at maximum profit. They were obliged to provide cheap and regular transport even in regions where the demand for transport was very low and to apply the same, or nearly the same, tariffs over the whole network in spite of the very large variations in costs among the different lines. In some countries, legal obligations exist as to the minimum number of passenger trains to be run every day. Moreover, certain categories of passengers and goods have the right to be transported at particularly favourable rates.

In many countries, particularly low rates charged for the daily transport of workers on urban and suburban lines in big towns act, in effect, as a subsidy to the industries located in these towns, and therefore as an incentive to concentration of industry, because it becomes possible to pay lower wages than would be demanded if workers were obliged to pay the full costs of their transport. In goods traffic, on the other hand, the selection of goods for which particularly low rates are granted has very often been made with an eye to regional considerations; thus, preferential rates have often been fixed for rail transport of the products of agriculture and fishing—two activities which are of special importance to the economy of less developed regions.

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[5] The new Five-year Plan for energy production in the Soviet Union is discussed in Section 6 of Chapter 2.

[6] These problems were discussed in the *Economic Survey of Europe in 1954*, Chapter 6.

In the period before the development of road transport, the national railway system could finance this subsidization of poor and sparsely populated regions by charging the same rates on all lines, although those rates were above costs on the main lines with dense traffic and below costs on other lines, and by using the *ad valorem* system in setting their rates. This system, in its conventional concept, consists in charging low rates for the transport of low-priced goods (mainly raw materials) and high rates for the carriage of more valuable commodities. It is true that many raw materials can be transported more cheaply than other commodities, but the differentials of the old *ad valorem* tariff structures were more general and much bigger than cost differentials. The *ad valorem* system is often accompanied by a tapering scale of rates which favour long-distance transport.

In countries which are at an early stage of industrial development, and where no long-distance road motor transport exists, the railways can obtain a larger volume of traffic through such rate systems, because the low rates for raw material transport induce the opening up of mines and encourage output of agricultural products in remote areas for sale in distant consuming centres. This was, of course, a considerable advantage to the newly built railways, which needed a large revenue to cover their great capital costs.

The support given to poor and sparsely populated regions by the application of a common system of tariff rates over the whole network, as well as the inducement provided by the *ad valorem* system for a spreading of primary production over the whole territory, is well known and has been described in text books on transport policy. It is often taken for granted, therefore, that a revision of the railway rate system would be harmful to the less developed regions in any country and has to be avoided at all costs. The problem, however, is more complicated, partly because the *ad valorem* system, while conducive to the spread of primary production, has the opposite effect on secondary production, and partly because modern decentralized industries can now be spread widely over any territory provided that an adequate road network exists. In fact, such industries in many countries currently rely on road rather than on rail services.

Effects of the ad valorem System

The *ad valorem* system has tended to promote industrial concentration in the big towns through the incentive given to the processing of agricultural as well as mineral raw materials in the big consuming centres rather than in the regions where they are produced. Before the development of road traffic forced the railways to narrow the gap between rates for raw materials and those for industrial manufactures, the *ad valorem* system was often carried to an extreme. The processing industries (for instance, the food-processing industry) located in the big consuming centres obtained transport of their raw materials at very low prices and avoided long-distance transport of their manufactures at excessively high rates, since the market for these lay near at hand. On the other hand, food-processing plants located where the raw materials were produced received no transport subsidies on their raw material inputs and had to pay excessive rates for the transport of their manufactures to the consumers.

It is probably because of the tendency to think of decentralized industries as small-scale enterprises serving the local market only that the inducement given by the *ad valorem* system to concentration in big towns has been overlooked. Before the emergence of road traffic, the high freight rates which large-scale industries had to pay in order to be able to sell in the local market of the small decentralized industries acted as a protection to the latter. This protection, however, became negative as soon as these industries tried to outgrow the local market and transport their manufactures by rail. By taxing certain transport operations and subsidizing others, the *ad valorem* system thus favoured not only an uneconomic location of industry, but also an uneconomic size of industrial enterprises.

The concentration of processing industry in the big towns cannot, of course, be attributed solely to transport policy in general and the *ad valorem* system in particular, since many other important influences were also at work. Nevertheless, the *ad valorem* system is one of the factors which explain why, for many regions, the railways did not bring industrialization, but served rather to draw raw materials and manpower away for use in more favoured districts.

This is not to deny that the *ad valorem* system may have had some favourable effects on the location of processing industries. It has probably prevented some industries based on imported raw materials from being set up in the big harbour towns, and—as is generally held in Germany—it may have made it possible to process elsewhere some of the steel produced in the congested region of the Ruhr. In most cases, however, such processing moves only from the congested area where the raw materials are produced to big towns—for instance, from the Ruhr to Berlin. Even the low rates for transport of coal, which are often mentioned as one of the decentralizing elements in the *ad valorem* system, do not seem, in practice, to have moved any considerable share of industry from congested mining areas to decentralized locations.

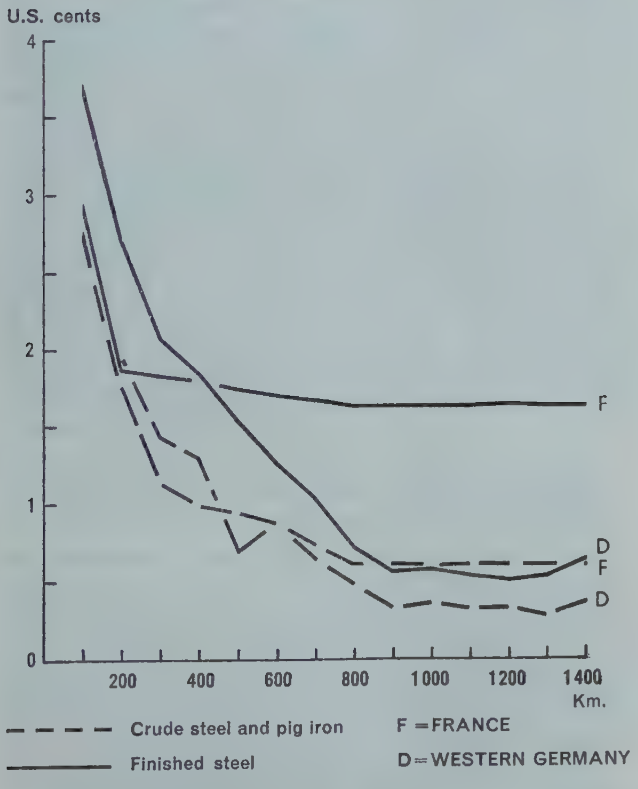
It is only where coal has been replaced by electricity, gas or oil as power for industry that any strong stimulus has been given to locate industries away both from the mines and from the consumers.

The tendency to concentrate industry in the big towns becomes most pronounced when the *ad valorem* system is combined with railway rates that have a faster tapering scale for raw materials than for manufactures (Chart. 3). Owing mainly to the costs of terminal operations the cost per kilometre of railway transport is much lower for long-distance transport than for short distances. If, nevertheless, manufactures transported over long distances have to pay nearly the same price per kilometre as is paid for carriage over much shorter distances, while long-distance transport of raw materials is encouraged by a steeper tapering of the rates, the result is a strong support to the location of processing industries in the big towns. It can be seen from the chart that in this respect the French rates system, with a scale tapering much faster for raw materials than for manufactures, gives a stronger incentive for industries to be located away from the sources of raw materials than the German system of steeply tapering rates for both raw materials and manufactures.

CHART 3

Tapering of railway rates in France and Western Germany in 1954

U.S. cents per additional ton-kilometre



Source: Information supplied by the High Authority of the European Coal and Steel Community.

The development of road transport has facilitated the location of industries either at the source of the raw materials or at other points outside the big towns. At the same time, the competition afforded by road transport has caused some modification in the *ad valorem* system of rates on the railways. By using road transport, decentralized industries could now avoid the high prices charged for rail transport of their finished products, at the same time as they could dispose of a much more flexible transport system. Even so, they remained at some disadvantage, because the *ad valorem* system subsidized transport of raw materials to their competitors in the big towns. This disadvantage is, however, tending to disappear, because the gap between rates for raw materials and those for manufactures has been reduced in nearly all countries, often through a smaller increase in the high rates than in the low ones in the successive general rate adjustments, and in other cases by reductions in the number of groups in which the goods are classified. There are, however, very few countries where the *ad valorem* system has been abandoned altogether. The reluctance to give it up is partly due to the support which it is thought to give to decentralized industries, and partly to the subsidization it provides for certain industries.

Effects of the System of Equal Rates for All Railway Lines

Costs of road transport may vary not only from one country to another, but also, because of differences in the quality of roads or differences in geographical conditions, from one region to another in a given country. In general except where differences in the quality of roads or in the density of traffic are very large, variations in costs within a country remain relatively small.

On the railways, the difference between costs on various lines is much larger, mainly because the capacity of fixed installations, rolling stock, and labour is badly utilized on lines with light traffic. Present-day railway systems are characterized by a growing gap in cost levels similar to that between modern industrial mass production and small-scale manufacturing under primitive technical conditions. On one side is the transport between big railway centres, connected by well-equipped lines and with a heavy load of traffic in relation to capacity; on the other side is the traffic between small stations or on secondary lines.

Approximate operating costs for various railway lines in Italy show the extremely wide range of costs per unit of traffic, which vary from less than half the average for the network as a whole on some main railway lines to more than ten times the average on certain lines with very sparse traffic, that is to say, in a ratio of one to twenty. It seems that about one-third of the Italian state railway network operates at costs which are more than twice the national average. This part of the network, which in spite of its relatively light traffic performs an important " feeder " service for the main railway lines, clearly operates at much higher costs than those at which road transport could handle the traffic, and it can be kept in operation only by heavy subsidies.

Not only in Italy, but in all countries of both western and eastern Europe, such subsidies are provided by the system of railway rates now practised, which consists in transporting at the same or nearly the same prices on railway lines with dense and with sparse traffic. Because of this, the road transport enterprises prefer to operate between the densely populated and highly industrialized districts where their own costs are lowest, and not in the districts where the costs of the railways are highest; and they naturally find their most profitable business in carrying high-value merchandise for which the railway rates are highest under the *ad valorem* system.

The paradoxical result of the present system of railway rates is thus that the lorries deprive the railways of a large part of the traffic for which the railways should be able to compete most advantageously and leave them the traffic which is bound to be operated at a deficit.

This extremely irrational distribution of traffic causes deficits for the railways, prevents a genuine lowering of transport costs and tends to induce uneconomic investment in the transport network. But the system of charging equal prices over the whole rail network gives a support to industries located far away from the big traffic lines, and any drastic revision of this principle to correspond to cost differentials would act as a deterrent to industrial decentralization.

Road Transport and Decentralized Industry

It was mentioned above that the development of road transport has facilitated the location of industries in the neighbourhood of their raw materials. It is, however, an important feature of modern policies of industrial decentralization that industries—other than heavy industries—may be set up at a distance both from the sources of raw materials and from the centres of consumption in order to utilise local labour and to avoid further industrial concentration in already crowded localities. In many cases, the industry itself has an interest in choosing a decentralized location; in others, the government or local authorities apply various measures to induce or force industries to set up in locations other than those they would have preferred. In these situations the transport facilities available as well as the prices charged for transport in the chosen location are of particular importance.

Since the costs of road transport are roughly of the same order of magnitude whether the traffic volume is large or small, road transport facilities can be made available to such industries in thinly populated and under-developed regions without subsidies, or at least with much smaller subsidies than are needed to provide them with rail transport. A policy of serving dispersed industries by road transport is much less costly than the traditional policy of keeping in operation secondary railway lines with heavy deficits. The interests of these industries therefore need to be taken into account in policy decisions concerning taxation, licensing and other restrictions on long-distance road transport. This is particularly relevant to own-account transport, which is of chief importance to decentralized industries.

While road transport undertakings are subject to licensing and other regulations in most western European countries, industrial enterprises are usually free to own as many lorries as they like and to use them freely so long as they are not used to carry goods for others. This greater freedom for own-account transport is often criticized by the commercial road transport undertakings and by the railways, which note the increasing tendency for industries to keep their own lorry fleets and to reduce their demands for commercial transport. It is to be feared, however, that if restrictions on own-account traffic were applied to decentralized industries, the result would be to halt or to limit the trend towards decentralization.

Transport and Regional Planning in the Soviet Union and Eastern Europe

In the regional policy of the Soviet Union and the eastern European countries the emphasis is very often on opening up mining resources and stimulating other primary production. The construction of new railways and the improvement of existing lines in order to allow more heavy traffic consequently figure prominently in many of the development schemes.

In many cases the opening of mines has been accompanied by the construction of processing industries on the spot, but in others the minerals are taken by rail for use or processing in distant industrial plants. It was mentioned above that the strain which this pattern imposes on the railways has brought about a reassessment of policy towards the location of new industries with the object of minimizing railway haulage. In the Soviet Union, the directives for the Sixth Five-year Plan provide, on the one hand, for the more rapid development of energy-consuming manufacturing in Siberia than in the European part of the country and, on the other hand, for as much emphasis on expanding coalmining in the Donbas as in the Asian regions, where output had been rising more quickly. Hitherto, the rapid expansion of primary production in the Asian regions and of processing industries in the European regions has meant that a considerable proportion of coal needs in the latter area had to be met from such distant sources of supply as Kuznetsk and Karaganda.[7] At the same time, Siberia has been supplied with a whole range of industrial products, from steel castings to consumers' goods, from European Russia. In Poland also there has been criticism that specialization, especially within the enterprise, has taken place without sufficient weight being given to transport costs.

In the Soviet Union and eastern European countries decisions on the location of new industrial enterprises are an integral part of their planning process. Moreover, the demands of each industry for carriage of individual commodities are laid down in yearly and quarterly transport plans, and the final decisions on the form of transport are in each instance taken monthly by the transport authorities rather than by users.

Despite this comprehensive administrative regulation of goods transport, there seems to be scope for incorporating economic incentives within rates policies so as to influence both the volume of transport and the location of industry. In the Soviet Union, the successive changes in railway rates which have altered the former *ad valorem* system,[8] and the scaling-up of degressive rates on long hauls, have been explained as measures to reduce demands on transport and to improve industrial location by bringing processing industry nearer to its raw materials or to its consumers. In the Soviet Union and those eastern European countries which have carried out similar rate reforms,[9] rates taper over the middle distances and, for some goods at least, increase sharply over long distances.

In the transport systems of eastern European countries and the Soviet Union, road transport plays a very restricted role except where railway construction is nearly impossible—as for instance in the Pamir—or where traffic is extremely dispersed—as in the virgin lands of Siberia. In eastern Europe, goods transport by road is generally not allowed over distances of more than 50 kilometres and requires permission in each individual case. In eastern Germany, road transport accounts for only 2 to 3 per cent of all transport over 50 kilometres, and in Bulgaria even transport between 25 and 50 kilometres is considered as belonging to the normal activities of the railways. Road transport costs are much higher in relation to costs of rail transport in eastern Europe and the Soviet Union than in western Europe, though this is partly because of the limited development of road transport and because nearly all of it is over short distances. The resulting high costs of road transport seem, in turn, to reinforce the prevailing opinion that it is too expensive to be used where a railway is available or can be built without exorbitant costs.[10]

As could be expected when public transport is strictly regulated and over-burdened, there is considerable pressure from industrial enterprises for permission to purchase and operate lorries on their own account. These vehicles, as in the west, carry only for the enterprise to which they belong. Transport on own account is, in general, held to be undesirable because, owing to lower capacity utilization, its costs are higher than those of the lorries belonging to the transport administrations. It does not seem, however, that account has been taken in these calculations of the lowering of industrial costs which is obtainable when industry can organize its transport as an integral part of its production process.

The advantage of the eastern European system of transport regulation is that it yields a high rate of utilization of the railway equipment, as has been seen in the previous chapter; but this may be offset by the inconvenience and losses to users when they are precluded from employing the most advantageous form of transport in the individual case, or have difficulty in obtaining facilities at the desired time.

There have, however, been some signs recently of a shift to a less rigid system. Poland recently lifted part of its restrictions on road transport, and in the Soviet Union and Czechoslovakia there are plans to give more emphasis to road transport, partly in order to release the railways from the burden of too much short-distance traffic.

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[7] Over 11 million tons of Kuznetsk and Karaganda coal were carried to the regions west of the Urals in 1954; this was 10 per cent of consumption in the European part of the country.

[8] Even in some of the countries which, in principle, have abolished the *ad valorem* system, rates are still very different for commodities of the same density. Some bulk products pay less than their calculated costs, and other products, mainly of the luxury type, pay significantly more.

[9] In some of the eastern European countries the old *ad valorem* system has not been changed.

[10] In the Soviet Union, the average cost per ton-kilometre of road transport is reported to be 15 to 20 times that of rail transport.

3. THE NEED TO MAKE RAILWAYS MORE ECONOMIC

The keen competition in western Europe amongst the producers of road transport equipment, and sometimes also amongst the road transport enterprises, acts as a spur to rapid technical improvement and to rationalization of operations. There are, in all countries, far greater obstacles to be overcome in improving railway transport. The railways are more tied to their traditions and to a physical layout which often makes it difficult to introduce modern technical improvements. Moreover, they are, as already mentioned, subject to a number of regulations dating from the previous century which limit the possibilities both for raising revenues and for lowering costs. The influence of these institutional factors and the measures by which their unfavourable effects can be reduced or overcome are considered below.

Labour Productivity on the Railways

It was shown in the preceding chapter that great savings in costs on the railways can be obtained by modernization, and that costs per unit of traffic are generally much lower in countries that have done this than in the others. Nevertheless, the greatest improvements in output per man on the railways in recent years have occurred not in the countries which have modernized, but in those where the volume of traffic has increased most rapidly (see Table 3). Part of the railways' operations are of such a nature that the amount of labour performing these operations is almost independent of the amount of traffic. Moreover, it is much easier to increase labour productivity by handling more traffic with the same staff than

TABLE 3

Changes in employment, volume of traffic and output per man of European railways, 1930 to 1954

Country [a]	1950 to 1954				1930 to 1950			
	Numbers employed		Volume of traffic [b]	Output per man	Numbers employed		Volume of traffic [b]	Output per man
	Total percentage increase	*Average annual percentage increase*			*Total percentage increase*	*Average annual percentage increase*		
Poland	−12 [c]	−2.7 [c]	9.3 [c]	12.2 [c]	..	..	..	..
Turkey	8	2.1	11.4	9.3	..	..	8.1	..
Portugal	−8	−2.2	5.2	7.4	26	1.1	1.8	0.7
Greece	17	4.0	11.1	7.0	−1	−0.1	1.9	2.0
Italy	−9	−2.3	3.4	5.8	7	0.3	2.5	2.2
Soviet Union	15	3.6	9.3	5.6	98 [d]	3.2 [d]	8.3 [d]	5.1 [d]
Netherlands	−9	−2.4	3.1	5.5	−11	−0.6	..	..
Belgium	−13	−3.6	1.5	5.1	−9	−0.5	−1.1	−0.6
France	−14	−3.8	1.1	4.9	−6	−0.3	−0.4	−0.1
Bulgaria	2	0.5	5.4	4.8	..	..	..	..
Western Germany	−5	−1.2	3.4	4.6	..	..	1.3	..
Finland	−7	−1.7	2.7	4.4	46	1.9	3.8	1.9
Austria	−4	−1.0	3.1	4.1	−6	−0.3	1.5	1.8
Switzerland	2	0.4	3.1	2.7	8	0.4	2.2	1.8
United Kingdom [e]	−5	−1.2	0.2	1.4	−5	−0.3	0.6	0.9
Spain	6	1.5	1.9	0.4	..	...	..	..
Denmark	1	0.1	−0.2	−0.3	32	1.4	4.5	3.1
Norway	11	2.5	—	−2.5	68	2.6	4.2	1.6

Sources: International Railway Statistics, Paris, and national statistics.

NOTE. — Personnel engaged on renewals is included in the employment figures for all years. It is possible, therefore, that some of the changes in output per man recorded in the table are due not to changes in productivity, but to changes in the degree of vertical integration of the railways between 1930 and 1954.

[a] In descending order of the increase in output per man in the period 1950–1954.

[b] Passenger and goods traffic has been combined on the basis of one passenger-kilometre = one ton-kilometre, which is generally used for statistical purposes in Europe.

[c] Period 1949–1954.

[d] Period 1928–1950.

[e] Excluding Northern Ireland

to reduce the staff in order to handle a constant or declining volume of traffic with higher productivity per man. This is probably the main explanation of the fact that increases in output per man in southern and eastern European countries have been particularly large, and those in the United Kingdom, Denmark and Norway very small.

Nevertheless, a number of countries where traffic has increased only moderately have obtained a fairly high increase in output per man by rationalization and reduction of staff. Staff reductions were generally larger and more widespread in the period 1950 to 1954 than they had been in the previous period shown in the table, but nowhere did they exceed the rate of 3 to 4 per cent a year that could be achieved simply by not filling vacancies normally arising.

Labour costs account for around 50 to 60 per cent of total operating costs of the European railways, and efforts to increase labour productivity further must therefore have a high priority in any programme aiming at reducing costs and prices of railway traffic. Personnel needed on the trains accounts for only 15 to 20 per cent of the railways' operating staff. It is mainly because of the large number of persons employed in maintaining the lines and in handling rolling stock, freight and passengers at the stations that labour costs are still so high (see Table 4). A drastic reduction of these categories of staff—by the rationalization of operations at the larger stations, the closing of others and the abolition of uneconomic services—is unavoidable if rail transport costs are to be reduced sufficiently to improve or even to maintain the competitive position of the railways.

Since most of the railway staff generally have lifetime contracts, it may be necessary to transfer railway personnel to other public activities, such as communications and road construction, which are expanding. The usual staff rules of the railways—

TABLE 4

Operating staff of European railways in 1954

Country [a]	Personnel on trains and locomotives	Others occupied with rolling stock	Personnel engaged on supervision and maintenance of fixed installations	Station personnel	Other personnel, including administrative	Total operating staff	Personnel on trains and locomotives	Station personnel
	Numbers employed per million units of traffic [b]						*As percentage of total operating staff*	
Netherlands	0.5	0.6	0.6	1.1	0.3	3.1	17	36
Switzerland	0.7	0.6	0.5	1.9	0.3	4.0	17	47
Sweden	0.7	0.8 [c]	0.9 [c]	1.6	0.5 [c]	4.5 [c]	16	36
Italy	1.0	0.7	0.5	1.3	0.6	4.1	23	32
Finland	1.2	1.0	0.5	1.6	0.6	4.9	25	32
Belgium	0.8	1.3	0.9	1.9	0.3	5.2	16	36
France	0.6	1.4	1.2	1.6	0.5	5.3	11	32
Western Germany	1.0	1.3	0.9	2.0	0.5	5.7	17	36
Austria	1.1	1.5	1.4	1.7	0.6	6.3	18	27
Denmark [d]	0.9	1.4	1.0	2.6	0.6	6.5	14	39
Yugoslavia	1.2	1.4	1.9	2.2	0.4	7.1	17	31
United Kingdom [e]	1.4	..	..	..	..	8.3 [c]	17	..
Norway [d]	1.3	2.0	2.0	3.1	0.6	9.0	14	35
Spain	1.6	2.2	1.8	2.2	1.4	9.2	17	24
Greece	1.1	2.3	3.2	1.7	0.9	9.2	12	18
Portugal	1.3	3.1	2.6	3.4	2.1	12.5	11	27

Sources: International Railway Statistics, Paris, and national statistics.

NOTE. — Because of the difficulties involved in producing comparable figures for operating staff, and especially the varying degree of vertical integration, the information given in the table should be taken to represent orders of magnitude only, and no conclusions should be drawn from minor differences between countries. Personnel engaged on renewals are excluded throughout, except for Sweden and the United Kingdom.

[a] Roughly arranged in ascending order of operating staff per million units of traffic.

[b] Units of traffic have been calculated by adding passenger and goods traffic on the basis of 1 passenger-kilometre = 1 ton-kilometre, which is generally used for statistical purposes in Europe.

[c] Including personnel engaged on renewals.

[d] 1953/54.

[e] Excluding Northern Ireland.

with lifetime contracts, tied pension schemes, and often very early retirement age—date from a period when employment with railways was rapidly expanding, over-all old-age pension systems did not exist, work on the railways was hard and often dangerous, and both poor health and death were expected at a much earlier age than today. Some of these staff rules are obsolete and now form an obstacle to railway modernization. From the purely economic point of view, it may therefore be advantageous for the railways, in countries where traffic by rail cannot be expected to expand much, to change their recruitment system even if that were to imply payment of somewhat higher wages to staff recruited on the new conditions. But the obstacles to such changes would admittedly be very great.

Elimination of Uneconomic Services by the Railways

As has been seen, the competitive advantage of road over rail transport is very strong in many instances. Nevertheless, in the foreseeable future carriage by rail will remain indispensable in regions where the existence of heavy industries or great population density provides a large volume of traffic. In such districts the railways should be able to handle long-distance transport of many commodities between large stations and industrial rail-sidings much more cheaply than can be done by road. This would reduce or defer the expropriation and construction necessary to provide densely populated regions with a network of motor-ways sufficient both for private motorists and buses and for local and long-distance lorry traffic.

Electrification and other measures to modernize the main railway lines have reduced, or are going to reduce, the costs of traffic between the large stations where operations are rationalized and a big volume of traffic is handled. It will, of course, be inadvisable to modernize and rationalize the whole railway network to the same extent, particularly on secondary lines and at stations which handle only a few wagons a day. Some countries have already begun to close small railway stations and to use other larger stations as centres for trans-shipment from and to lorries. In other countries the railways are more hesitant because they fear that the closing of the small stations may induce their customers to give up the use of the railways over longer distances as well. This may very well be true, but there is little doubt that the risk of loss of traffic will be still greater if the railways fail to reduce their costs by closing a very large percentage of the stations and by cutting off other uneconomic services.

To a large extent, however, the railways still find themselves compelled to continue even their most uneconomic operations. In the period when the railways had a near-monopoly of transport over medium and long distances, it was deemed necessary to ensure the carriage of all goods—as well as passengers—over the whole territory without discrimination; and this led to the introduction both of statutory obligations for the railways to carry and of systems of government-fixed and published railway rates. By breaking the monopoly of the railways, the development of road traffic has made these obligations and controls not only less necessary as a protection for the users, but also damaging to the financial position of the railways to the extent that they are thereby prevented from competing efficiently with road transport.

To oblige the railways to continue to operate deficit lines and deficit services not only results in uneconomic resource allocation, but, by barring the way to an elimination of the railway deficits, also discourages the railway authorities from making a thorough-going effort to reduce them.

This approach does not, of course, apply to regions where industrialization is just beginning. In such cases it may be in the interest of the railways to continue their services even at a loss until the traffic grows sufficiently for economic operations. The problem of closing down services would not then arise; and it might even be desirable for the railways to offer particularly favourable conditions to industries and thus help to speed up the industrialization of the region. On the other hand, it is obviously neither in the public interest nor in the interest of the railway system as a whole that subsidies be given to local railway transport in order to attract industries to—or to prevent them from moving away from—regions which can best be served by road transport. Any new industries attracted to such regions should obviously be of the type for which road transport is best suited. There are, in all countries, many such industries providing the necessary basis for industrialization of areas with scattered population.

It is not intended to suggest that the railways should be allowed to refuse services to certain industries or individuals while providing exactly the same services on the same line to others, or that they should be allowed to terminate services without warning. But the discontinuing of uneconomic services with reasonable advance notice need not be harmful to local interests in cases where road transport can perform the services at a reasonable price.[11] Operating costs could, however, be drastically reduced on many uneconomic branch lines without closing them down entirely. On such lines, rail operations may be limited to wagon-load traffic, with all passenger and parcel traffic discontinued and all intermediate stations closed. In this way the running of trains may become perfectly economical so long as the track need not be replaced—i.e., in some cases for several decades.

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[11] Where the volume of traffic—goods as well as passengers—is so small that even the service of buses or public road carriers for goods transport would have to be subsidized, this need not imply that the railways must be involved in new uneconomic operations. Subsidies may be granted by the government or local authorities to private road services, or the authorities themselves may establish the services.

Experience has shown that it is very difficult to obtain a decision by the political authorities to abandon or reduce services on a particular railway line. In some countries pressure from local groups has been so strong that deficit lines have been reopened fairly recently after having undergone costly repairs due to war damage to bridges and track. It is important, therefore, that a general authorization to discontinue uneconomic services should be given to the railways, which are less directly exposed to political pressure and are in the best position to judge to what extent particular services are uneconomic. Clearly, however, the railways need to consider not only short-term commercial interests, but also longer-run regional development programmes and prospects, and a close collaboration is necessary between them and the representatives responsible for the Government's regional policy.

The Use of Rate and Tax Policies

From the point of view of improving the financial position of the railways, the most effective change in the tariff system—apart from dropping the *ad valorem* system as discussed above—would be to abolish the principle that rates on low-cost lines have to be kept at the same level as the rates on high-cost lines. Unfortunately, a revision of rates to make them correspond to cost differentials would in many cases be detrimental to industries and towns located on secondary railway lines, and might discourage the establishment of new industries outside the big cities. This result would be particularly likely if the revision included a larger reduction of tariffs on traffic between the railway stations in the big centres than in the rates between other stations and sidings on the main railway lines. The over-charging on the main inter-city lines in compensation for the under-charging on other lines (and, in some countries, in compensation for the deficit on passenger traffic) is, on the other hand, admittedly the most important factor encouraging the uneconomic expansion of road transport at the expense of rail transport.

A possible solution to this dilemma is to raise the effective costs for road transport in and between the big cities and thereby, at one stroke, to stimulate the use of rail transport, deter the further centralization of industry and diminish traffic congestion on the main roads between the large cities. It was noted in Chapter V that in some countries lorry traffic may not even pay its appropriate share of road costs. In these cases a pure cost consideration should in any event lead to the imposition of higher taxes. Moreover, lorries pay in most countries the same taxes wherever they go, although the costs for the economy are often much larger if they operate in big towns or on overcrowded inter-city roads than when they serve sparsely populated and under-developed regions.[12] There would thus seem to be a case for taxing the lorries serving the congested districts at higher rates than other lorries—an argument which could be applied equally well, or even better, to private motor-cars. While general taxes on road transport tend to fall particularly heavily on decentralized industries, the opposite result would follow from differential taxes on lorries belonging to industries in congested districts or operating on main roads parallel to railway lines.

If the railways concentrate their activities on the most profitable services, and thereby become able to cut their prices sharply in the longer run, differential taxation of lorries may later become unnecessary, except for the part which accounts for differences in track costs—defined in a wide sense as including costs of construction of suburban highways, traffic regulation, etc. The problem of the high-cost railway lines or services, on the other hand, cannot be solved by taxes on road traffic. Since the present system of subsidies to some railway services covered by high prices for others is also too uneconomical to be relied on as a long-run solution, there seems to be no other way than the discontinuation of uneconomic operations recommended above.

While the policy of varying rates between various lines according to cost differentials is open to the objections just considered, there are several other fields where a more flexible rate policy can be used with significant advantages. This is already being done in a number of countries. Other public utilities, such as electricity and telephone companies, are often allowed discriminatory practices which are denied to the railways. It is, for instance, irrational that most railways are prevented from reducing peak loads or from obtaining return loads by applying differential rates in different periods or for different directions, and from charging lower prices for regular shipments, or for full train-loads for which no shunting operations are necessary.

There are, however, a number of factors which set limits to the application of a flexible rate policy, even introduced under public control. The first relates to the very large amount of overhead costs which makes it impossible, both in theory and in practice, to determine the true cost of any individual transport operation by rail. It may be possible to determine the specific costs of a particular operation, but if the railways are to reduce, or at least to avoid increasing, their deficits, they can obviously allow only a small number of users to have their goods transported at, or close to, these specific costs. It will therefore be necessary to keep a basic rate system aimed at covering at least the full operating costs of the railways, under such assumptions as may be reasonable about the volume of traffic, and to allow reductions from the standard rates only in accordance with certain general rules and within fixed limits.[13]

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[12] It was seen in Chapter V that, hitherto, the social costs of road traffic per vehicle have been larger in sparsely populated than in densely populated districts, but that it may very often be different in the future. In addition, social costs of urban traffic (by commercial vehicles as well as passenger cars) which were earlier relatively cheap per vehicle, are going to rise tremendously with the need to build urban motor-ways and expensive facilities for parking by day and by night.

Owing to their large size, the railways cannot differentiate their rates to the same extent as is possible for the numerous small road-carrier undertakings. It is, moreover, in the interest of the railways not to go too far in cut-throat competition with road transport, because a further deterioration in the relations between the partners in the transport process will only get in the way of the co-operation necessary for the development of combined road-rail transport.

Finally, the advantages which can be obtained from a system of flexible railway rates depend on the way in which the road transport enterprises react to it. In some countries there already exist cartel agreements between a number of the road transport undertakings; in others their concern about cut-throat competition with each other is so great that they support many of the restrictions on road transport. Moreover, they tend, even in countries where they are not obliged to do so, to adjust their tariffs more or less in line with those of the railways. There is a danger, therefore, that the first, and indeed paradoxical, result of more active competition in rates from the side of the railways would be a cartelization of the road transport industry. In that case, it would be better to require commercial road transport undertakings to apply published tariffs, fixed in relation to the costs of road transport, thereby providing incentives to a rational distribution of the traffic between the various means of transport and avoiding the distortions of the structure of prices for transport services which would result from the application of identical rates to road and rail traffic.[14]

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[13] Of course, the railways still have local monopolies for the very heavy products on lines which are free from competition from water transport so that the mining and steel industries need a public control of railway rates in order to prevent the railways from introducing a sort of anti-*ad valorem* system and covering their deficits by charging far above costs for these products. Such a policy would, incidentally, be unwise also from the point of view of the railways because it would hasten changes in industrial location and substitution of the products of these industries by others (for instance, coal by oil) so that in the long run the demand for railway transport would decline.

[14] In western Germany the road transport undertakings are obliged to transport from door to door at the same prices at which the railways transport identical goods from station to station. Because of this, and because of the monopoly profits it allows on transport of high-value products, the German rate system for road transport actually promotes the shift of traffic from rail to road.

4. The Allocation of Transport Investments

It was shown in the beginning of Chapter 5 that in the last twenty-five years road traffic accounted for about two-thirds of the total increase in goods traffic in western Europe and a still larger part of the increase of passenger traffic. There are no signs of any reversal of this trend: on the contrary, the information brought together in this study seems to show that the preference for transport by road rather than rail will become still more pronounced in the next quarter-century. Although national income is likely to continue to rise fairly rapidly, the increases in total goods transport by rail and road together will no doubt be less rapid than in the past because of a decline in transport of solid fuel, which in most of Europe accounts for one-third to one-half of all goods transport by rail. At the same time, changes in consumer demand, in industrial methods and in industrial location will all combine to accelerate the already rapidly rising demand for road transport.

Although goods traffic on a number of main railway lines may increase considerably, it seems unavoidable that twenty-five years hence traffic will have ceased or will be much smaller than today over large parts of the present railway networks in western Europe, while road traffic, both of passengers and of goods, will be several times the present level.

In investment policy the industrially developed countries would seem, therefore, to have little choice—the construction of roads, the readjustment of cities to dense motor traffic and the building of new industrial centres away from the over-crowded old towns have to be given a high priority. To neglect these investments in the hope of being able to reverse the trend from rail to road by restrictions on road traffic or by railway modernization will only make the traffic problems of the future still more intractable. In the western European countries, the effectiveness of taxes on private motor vehicles in deferring the need for road investments is doubtful or at least open to dispute, although the situation may differ according to the countries concerned. The main effect of higher taxes seems to be a shift from large to small vehicles. In any case it is to be expected that the rapid rise in the number of private motorists—and of people who hope to become car-owners in the near future—will make it more and more difficult to obtain parliamentary majorities for an increase in motor taxation high enough to have a noticeable influence on the volume of private motoring. As regards general taxes on goods transport by road, although they would add to the costs of industry and trade, it is unlikely, even if their rate were fairly high, that they would succeed in making enterprises give up the advantages of road transport, and especially of their own transport, over short and medium distances; it is only the volume of long-distance road transport which may be influenced by taxes.

Railway investments in western Europe have in recent years been very large in terms of railway revenue, as was shown in Chapter 5. Since in many areas railway lines have ceased to be the indispensable basis for economic and social life and have become a mere alternative to road transport, railway investments should be tested by the same criteria as other productive investments and should be undertaken only if there is a reasonable chance of depreciating the capital before they become obsolete. This implies that the investment policy of the railways will have to be very selective. Investments in modernization of the main lines are likely to pay, but there is little chance that this will be the case with respect to costly modernization of secondary railway lines. Improvements in utilization of capacity and the elimination or reduction of uneconomic services can reduce the need for investments in rolling stock, and the discontinuation of operations permits economies in administration and other overhead costs. New investments and renewals in rolling stock, lines and stations will be profitable only where the volume of traffic can be expected, over several decades, to remain large enough not only to pay operating costs and depreciation of the new investments, but also to contribute something to cover the general costs of the railway system.

It follows from what has been said above that, in western Europe, investments in both railways and roads in the coming years will have to be concentrated in the most highly industrialized and crowded areas, while in the less congested regions road investments will be much less costly and there may be disinvestment in the railways. Although this distribution of investments is undesirable from the point of view of regional development, it is, of course, no solution to modernize uneconomic railway lines or to improve roads which, for the time being, are sufficient for the volume of traffic they have to carry. The allocation of transport investments mainly to the congested regions or to roads and railway lines connecting congested regions, and the incentive this will give to further crowding, imply, however, that there is a strong case for taxing lorries and motor-cars operating in and between these regions at much higher rates than in other parts of the country, as was earlier proposed. Moreover, it makes it highly desirable that positive measures should be taken to develop new industrial centres outside the crowded regions, both by means of investments in public utilities other than transport and by support to private investments.

The situation is very different in large parts of southern and eastern Europe. In these countries, roads around and between a few large cities are usually relatively satisfactory in relation to the sparse vehicle traffic they have to carry, but over most of the territories roads are often so bad that industrialization based on road traffic is impossible. In cases where such regions are without railways it would seem preferable to give a high priority to road building, as in Turkey, and to build railways only where mineral or forestry resources are so large that their exploitation would yield sufficient traffic over the years to justify the investment. Where, on the other hand, a region is already equipped with railway lines that can handle long-distance traffic with little investment requirements, it may be preferable to avoid major road investments and refrain for the time being from long-distance road transport.

With regard to the development of private motoring, the demand on resources which this involves should be weighed against other possible uses. Western European countries in recent years have devoted between two-and-a-half and four per cent of their gross national product to purchases of passenger cars and investments in and maintenance of roads. Less developed countries with heavy demands upon their limited investment resources may well prefer to apply measures to defer the development of private motoring and to concentrate the construction of new roads where they are needed for goods transport—that is, in areas less adequately or less efficiently served by the railways, including short-distance transport in and around industrial centres and local roads connecting agricultural centres to major roads or railheads.

PART III

INCOME DISTRIBUTION IN WESTERN EUROPE

Chapter VII

CHANGES IN THE LEVEL AND STRUCTURE OF OUTPUT IN WESTERN EUROPEAN COUNTRIES

1. National Accounts as an Indicator of Economic Change

Since national accounting data became available as a consistent reference frame they have proved to be a useful tool of analysis and have been used particularly for a description of changes in the growth and composition of expenditure. For a considerable number of western European countries and for a series of years, going back often to the pre-war period, it is now possible to analyse output by industry of origin. This approach is particularly suitable for showing the variations in rates of growth of different industries and the resulting changes in industrial structure of countries at different stages of economic development.

The way in which people of European countries earn their living has changed very considerably over the last hundred years, which have seen the rapid industrialization of a large part of the continent, although there have been regions north and south, west and east, which have been drawn much less than others into the stream of change and growth. The broad economic and social trends are well known: the relative decline of agriculture and handicrafts, the development of large-scale enterprises and urbanization, the relative expansion of service trades, and, above all, the rise in individual incomes in all sectors of the economy in spite of a reduction of the working week. Much of this change-over occurred in the period before the First World War, but the process was not arrested in the troublesome inter-war years. It remains to be seen whether or not, after the damages of the Second World War were made good, the same forces have re-established themselves in the last decade.

One may ask whether reconstruction meant, on the whole, a return to the pre-war pattern, or whether the European economy now looks significantly different from what it was in the late 'thirties. So much emphasis has been placed in recent years on the intensive development of electric power that one might expect to find its growing importance reflected in the data. Similarly, industrialization and mechanization have been so much on the agenda that one might expect to see the gap between the mature industrial countries and other areas in Europe diminished. It is also of some interest to discover whether the rate of growth since before the war has been fairly uniform in western Europe and whether in the post-war climate of full employment it has been greater than the two or three per cent per annum usually given for the late nineteenth and the early twentieth century. Much of the economic analysis of the post-war years has been of a short-period character, and understandably so during the period of reconstruction. To look at long-term or, at least, medium-term changes is often useful, in order to get the succession of short-term changes into perspective.

In this chapter, the growth of the economy as a whole and of its major sectors will be examined for those western European countries for which adequate data are available.[1] The absolute and relative changes in earning power of the main industry groups of the economy give an approximate answer to some of the questions about the expansion rates and the structural shifts in the European economy. The economic forces behind the expansion are the net result of changes in the quantity of factors employed and the efficiency of their co-operation, of changes in the composition of output, and of changes in the money rewards of factors and hence in the prices of output produced. Many of these underlying factors are only imperfectly measurable, and even if this were not so they could not by themselves explain the numerous forces acting on both supply and demand, including the actions of governments, which caused the particular developments of sectors within an economy or of whole economies. Such an explanatory or causal account of recent developments transcends the compass of this chapter, but some of the factors enabling or affecting growth and change can be shown or inferred.

The gross domestic product (in some cases the net domestic or net national product), broken down by industries in which net output originates, is given for many countries at current prices. But prices have risen considerably over the last ten or twenty years, and in varying degrees in different countries and in different sectors. In order to study real growth and to eliminate the disparity of price movements between countries and between sectors, the volume of net output (or net output at constant prices) must be estimated. A number of countries provide such estimates of output at constant prices. For some others, tentative estimates can be made.

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[1] National product at factor cost by industry of origin is not available for eastern Europe and Yugoslavia; but there are also a number of western European countries for which no industry break-down is given (Sweden, Switzerland, etc.).

The methods used in different countries in constructing the quantity indices of net output for commodity and services sectors vary considerably. They are designed to measure the volume of net output or, in terms of income, the income that would have accrued to factors if prices of commodities and services produced had remained at base-year level. Changes in the quantity of sector net outputs reflect changes in the quantity and quality of factor inputs and in the efficiency of factor combinations. In practice it cannot be expected, therefore, that sector income at constant factor prices will yield the same result as net output calculated at constant commodity prices.[2] The base years chosen for the price weights differ: some countries adhere to pre-war weights, others to weights of a post-war year. This impairs international comparability, and price weights from distant years may distort relative sector developments. Caution is therefore needed in interpreting the figures. The purpose of estimating sector income at constant prices is to eliminate relative price movements between the sectors due to market forces, monopolistic bargaining strength and government policy, and thus to obtain both the relative contributions of sectors to the volume of output, and, for intertemporal comparisons, to show changes in the absolute volume of net output. These can then be analysed further, to some extent at least, by relating the real output data to figures of labour inputs.

In spite of the limitations just mentioned, data on output at constant prices by sectors are the most comprehensive framework for a study of the expansion and changes in economic activity which have occurred in the last two decades in western Europe, and are superior to the partial gross production indices which are available only for certain commodity-producing industries.

Among the many factors which enable an economy or industry to grow, hardly any lend themselves to direct and satisfactorily accurate measurement. Sometimes, though rarely for a series of consecutive years, it is possible to relate output changes to changes in the quantity of labour employed. The industrial classification of employment can, however, often not be matched with that of output and—apart from census years—employment data by sectors are often confined to dependent employees, excluding the self-employed and the family helpers. Even if the numbers employed could be matched accurately with the output data, they are at best a very rough approximation to the concept of labour inputs. Allowance should be made for the composition of the labour force by age and sex and by grades of skill, and for variations in hours and intensity of work. Statistical details to measure these elements in the labour input of industries are often lacking or not internationally comparable, but the direction of change can sometimes be indicated. It is even more difficult to estimate statistically changes in the amount and quality of capital employed. Data on the age composition and the degree of utilization of fixed capital are scarce in any case, and the inputs of working capital cannot easily be put on a quantitative basis. If sector net outputs are related to only one element of inputs, namely the crude number of employed persons, any changes in the relation must reflect the combined effects of all the other input elements on the side of labour and of capital.

The definition of industry groups, in spite of attempts at international standardisation, is not yet uniform in coverage, and efforts made in connexion with the present inquiry to introduce the necessary adjustments, with the help of governmental statistical offices, have had only a limited success.

The division of economic activities into sectors follows, on the whole, the conventional pattern based on technical characteristics, such as the technical nature of the process or the product or of the raw material used. No attempt is made to classify industries by economic characteristics, such as capital intensity, cost structure or market conditions. As far as possible the International Standard Industrial Classification of sectors will be used but, as the footnotes to the tables show, uniform definitions of sector coverage cannot always be achieved. This often implies a lumping together of heterogeneous activities and a loss of interesting detail. Only intertemporal comparisons of real products of sectors will be made. The more ambitious attempt to compare real product, by industry of origin, between countries with wide differences in industrial and social structure cannot be undertaken at this stage.[3]

As a way into the analysis, it may be useful to start with a very broad grouping of activities—those concerned with the production of commodities or material goods, and all the others commonly designated as services. Services are in the same sense economic " goods " as bricks and brass, but production of material goods must always have a substantial importance, not only for the welfare of the country but also for its productive development. The relation between commodity production and service production is, however, by no means a simple one. It has often been asserted that, after a certain stage of development has been reached, the share of services tends to grow with the level of industrial development, or at least with the type of development known in the west. The definition of services used here is perhaps wider than that commonly used in support of this thesis, as it includes private as well as public services, but, as will be seen later, the data do not in any case give much support to it.

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[2] It should hardly be necessary to stress that the quantity of sector net outputs is not an expression of the purchasing power of sector income which could be derived by deflating of sector incomes uniformly by, say, a consumer's goods price index. Such a uniform deflator would, of course, leave relative sector shares and total product the same as if they were measured at current prices.

[3] For discussion of the methods of interspatial comparisons, see Deborah Paige & S. Adler, " International Comparisons of Real Product: An Approach by Industry of Origin ", *Income and Wealth*, Series IV, International Association for Research in Income and Wealth, 1955.

What a sector contributes to the national income is measured by the sum of wages, salaries, profits and other income derived from the activities defined in the sector heading. It is neither the total income received by the economic agents employed in the sector (since they may derive income from work or property in other sectors), nor the gross output of the sector. The sum total of factor earnings is, of course, equivalent to the value added or net output measured at factor cost—that is to say, at prices received by the producer.[4]

It has become a widely accepted convention to choose the domestic product as the framework for the analysis of income by sector of origin. The domestic product measures the income generated within the national boundaries and omits the net income received by factors from abroad which enters into the gross national product. For many purposes a net output distribution would be a suitable reference frame. In practice, the gross income concept recommends itself, particularly for international and intertemporal comparisons, for these reasons: firstly, because conceptual and methodological differences among countries in making allowances for depreciation are eliminated; secondly, the difficulty of estimating true depreciation and allocating it to sectors is avoided. As far as possible the gross income will therefore be taken as a base, but there are several countries for which only net domestic product by sectors is given. Gross income should ideally be corrected for stock appreciation, which obviously is not part of true income earned or generated in the sector, but although estimates of stock appreciation in total domestic product are sometimes given, they frequently contain a considerable margin of error, and the allocation to individual sectors is generally not attempted. Not much seems to be gained by relating sector shares which include stock appreciation to gross domestic product corrected for stock appreciation.

2. The Expansion of European Economies

A country is growing fast, if the experience of the nineteenth century is any guide, if it doubles its real income within 25 years, implying a cumulative rate of growth of three per cent per annum. Not many countries have expanded at this rate for such long periods in the nineteenth or in the twentieth century, and then only in times of rapid population growth. If aggregate output increased by three per cent per annum and the working population at the same time by one per cent, it would need 35 years to double the level of output per head. Much higher rates of growth have been reported by eastern European countries and have also been achieved for a few years in western European countries in the recovery phase from a deep depression when both capital and labour were severely under-employed. The latter is clearly a short-period phenomenon and the rate of advance is slowed down when labour and equipment reserves are fairly fully employed. Advances beyond this point depend on improvements in technical and organizational efficiency, usually, but not always, requiring new investment, on changes in labour supplies which can be drawn into employment, and on changes in the structure of industry—i.e., a movement of factors of production from low-productivity to high-productivity sectors.

All these elements of long-term growth are complex factors. The same rate of investment may yield greater output changes in a country setting up new and up-to-date plants than in a country which makes balanced extensions to a number of existing plants. Amortization funds in newly industrialized countries are available for new investment,[5] while, with a different age-composition of capital assets, they will be needed to finance replacements. Investment may be heavily concentrated on productive assets in one country and more evenly distributed between social and industrial investment in another. Capital may be worked more intensively in countries with abundant labour supplies than in countries with labour shortage.

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[4] This in turn can be expressed as being equal to receipts from sales plus consumption and investment in kind, plus subsidies received by the producer, minus purchases used up in production, minus indirect taxes paid by the producer. Consumption or investment in kind valued at producers' prices is a substantial item in agricultural countries, and its proper estimation and evaluation is difficult in practice and likely to affect international comparability.

[5] This point was discussed in the *Economic Survey of Europe in 1955*, Chapter 7. See also E. D. Domar " Depreciation, Replacement and Growth ", *Economic Journal*, March 1953.

TABLE 1

Index numbers of gross domestic product at constant prices

Pre-war [a] *= 100*

Country		1949	1950	1951	1952	1953	1954	1955
Belgium	GDP	109	116	124	123	125	129	135
Denmark	GDP	122	132	133	134	141	145	145
Finland	NDP	116	123	135	134	136	149	159
France	GDP	112	120	125	128	131	138	149
Western Germany	NDP	100	115	129	137	147	160	178
Greece	GDP	80	80	86	84	96	100	106
Ireland	GNP	114	114	115	120	123	124	. .
Italy	GDP	101	109	119	123	133	139	150
Luxembourg	GDP	104	109	122	123	125	131	136
Netherlands	GNP	124	131	131	133	147	153	. .
Norway	NDP	125	133	138	144	148	155	159
Spain	NNP	96	106	126	134	135	148	154
Sweden	GNP [b]	130	137	137	140	146	153	159
Switzerland	NNP [b]	121	128	134	134	140	145	. .
Turkey	GNP	107	124	143	155	171	156	171
United Kingdom	GDP	113	117	120	119	124	130	134
Austria	GNP [c]	100	110	120	119	122	133	144
Portugal	GDP [c]	. .	. .	100	100	105	111	112

Sources : See Appendix B.

NOTE. — Apart from western Germany and Norway, price weights relate to a post-war year. With the exception of the Netherlands, Portugal, Sweden and Switzerland, original data in constant prices have all been based on 1950, but this does not mean that they are weighted by 1950 prices. For further details, see Appendix B.

[a] 1938 except for the United Kingdom, 1937; western Germany, 1936; Belgium, 1936-1938; Luxembourg, 1937-38; Sweden, 1938-39; Spain, 1935.

[b] At market prices.

[c] No pre-war base available. Post-war base: Austria 1949; Portugal 1951.

These and similar factors make the rate of investment a variable influence in long-period changes in output.

Nor is labour supply a unique quantity: it is a multi-dimensional quantity composed of number and quality of manpower, of working time and effort, of degree of supervision and of a number of institutional factors (for instance, rules or customs respecting child labour or female employment, or trade union rules). An increasing labour supply requires a widening of the economy through the creation of new places of employment. Such widening is often associated with higher productivity, because plant of newer and usually better construction comes into operation. This is not necessarily so, however, and in any case much of the capital required for widening will reduce the resources available for a deepening of the capital structure.

The scope for increasing output by shifts from one sector to another is greater in countries with marked inequality of sector outputs than in others, and, although absolute contractions of sectors are rare, differential rates of growth in terms of employment and other factors of production are frequent. Moreover, many of the important shifts of labour and output are taking place within sectors and through changing methods of production or changes in the product composition.

The national accounts data give global output figures for broad sectors but not details of inputs or information about the capital structure of sectors, and they would have to be supported by micro-economic studies of costs and output dispersion within sectors if the specific features of growth were to be fully explained. Even the global data, however, give a general picture of the economic developments in different parts of western Europe and of the changes within countries.

In 1954-1955, output of almost all countries for which data are available was at least 30 per cent above the pre-war level (see Table 1).[6] That may be judged to be a small expansion over this length of time; but the period includes the economic effects of the Second World War with first the transition from a peace economy to a war economy and then the reconversion to peacetime production. Some countries experienced post-war disturbances of various kinds which kept their output well below the pre-war level, and their speed of recovery differed markedly. Western Germany is probably the outstanding case where, in spite of destruction and a late post-war start, recovery was very rapid so that the real product now lies about 70 per cent above the base year. Even if allowance is made for the fact that, for technical reasons, the year of comparison is 1936 and that the real product in 1938 (which is a standard year of comparison for most other countries) may have been 10 per cent higher, the 1955 output in real terms would still be at least 50 per cent above the pre-war figure. Moreover, no less than six other countries have managed to raise their rate of output by 50 per cent or more: the Netherlands, Norway, Sweden, Italy, Finland and Turkey. The first three of these countries —the Netherlands, Norway and Sweden—at the end of the post-war transition period (say 1949) already showed a greater rise above the pre-war level than most other countries and maintained their relative advantage in subsequent years. The pre- to post-war expansion of Finland, Italy and Turkey was, by contrast, relatively smaller; but their growth in the last six years has been extraordinarily rapid—in Turkey presumably as a result of a vigorous State policy of expansion supported by foreign aid, and in Finland partly under the pressure of reparations and an economic policy that fostered expansion. In some of these countries the economic dislocations of the war seem subsequently to have led to an accelerated increase in output.

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[6] " Pre-war " refers to the year 1938 with the exceptions indicated in Table 1. The terms " pre-war " and " 1938 " are used interchangeably throughout this chapter.

Most countries experienced a recession in 1938. The rise in real output from the pre- to the post-war period would therefore have been smaller if the year 1937 could have been chosen as a base year.[7] Even in 1937, however, many European economies still had much unemployment. Moreover, in spite of war losses of human lives, the active population increased in varying degrees in the different countries. Thus, part of the rise from the pre- to the post-war level was due to a fuller utilization of resources (a cyclical factor) and to the absorption of part of the increase in population into employment. The relative importance of these two factors is illustrated in a very rough and ready manner in Table 2. The decrease in unemployment and the increase in the working population are clearly important elements in the differential growth rates of some countries, such as western Germany, but seem to have played little part in the rates of expansion of, say, Finland or France.

TABLE 2

Changes in unemployment and in total working population between a pre-war and a post-war census date

Country	Unemployment expressed in percentages [a]	Working population	
		Index numbers *Pre-war =100*	Cumulative annual rate of increase
Belgium	1937: 13.8 1948: 6.4	107.0 *	0.6
Denmark	1938: 21.3 1950: 8.7	106.5	0.6
Finland	1939: 0.2 1950: 1.0	100.4 [b]	0.04
France	1938: 2.0 1954: 1.0	101.8 [b]	0.1
Western Germany	1936: 14.7 1950: 10.2	122.9	1.5
Greece	..	104.5 [c e]	0.3
Italy	1938: 4.3 1951: 8.8	101.0 [d]	0.1
Luxembourg	..	101.7 [e]	0.1
Netherlands	1938: .. 1950: 2.0	129.5	2.2
Norway	1938: .. 1949: 0.8	111.1	1.0
Switzerland	1938: 8.6 1950: 1.8	109.2	0.7
Turkey	..	130.0 [e]	2.2
United Kingdom	1938: 9.5 1948: 1.6	108.2	0.8

Sources : See Appendix B.

[a] For the reasons stated in Appendix B, the unemployment percentages are not fully comparable between countries.

[b] Including unpaid female family helpers.

[c] Total population (in 1938, 120,000 have been added for the Dodecanese).

[d] Excluding domestic services.

[e] The index refers to 1950 for Greece and Turkey, and to 1947 for Luxembourg.

If the whole period is divided into two parts, the first showing the development from 1938 to 1949, the second the expansion from 1949 to 1955, it becomes clear that in all countries the rate of growth has been appreciably greater in the second period. The slope of the lines in Chart 1, which is drawn on a semi-logarithmic scale, are steeper, though in varying degrees, for all countries in the post-war period. Data for each year between 1949 and 1955 have been plotted, and a line connecting the two years gives a good indication of the trend, but it will be found that in many cases the expansion was slightly faster up to 1951 than afterwards. There may well still have been slack in the economic system in 1949, but between 1949 and 1951 most of the remaining bottlenecks disappeared and made possible an all-round expansion.

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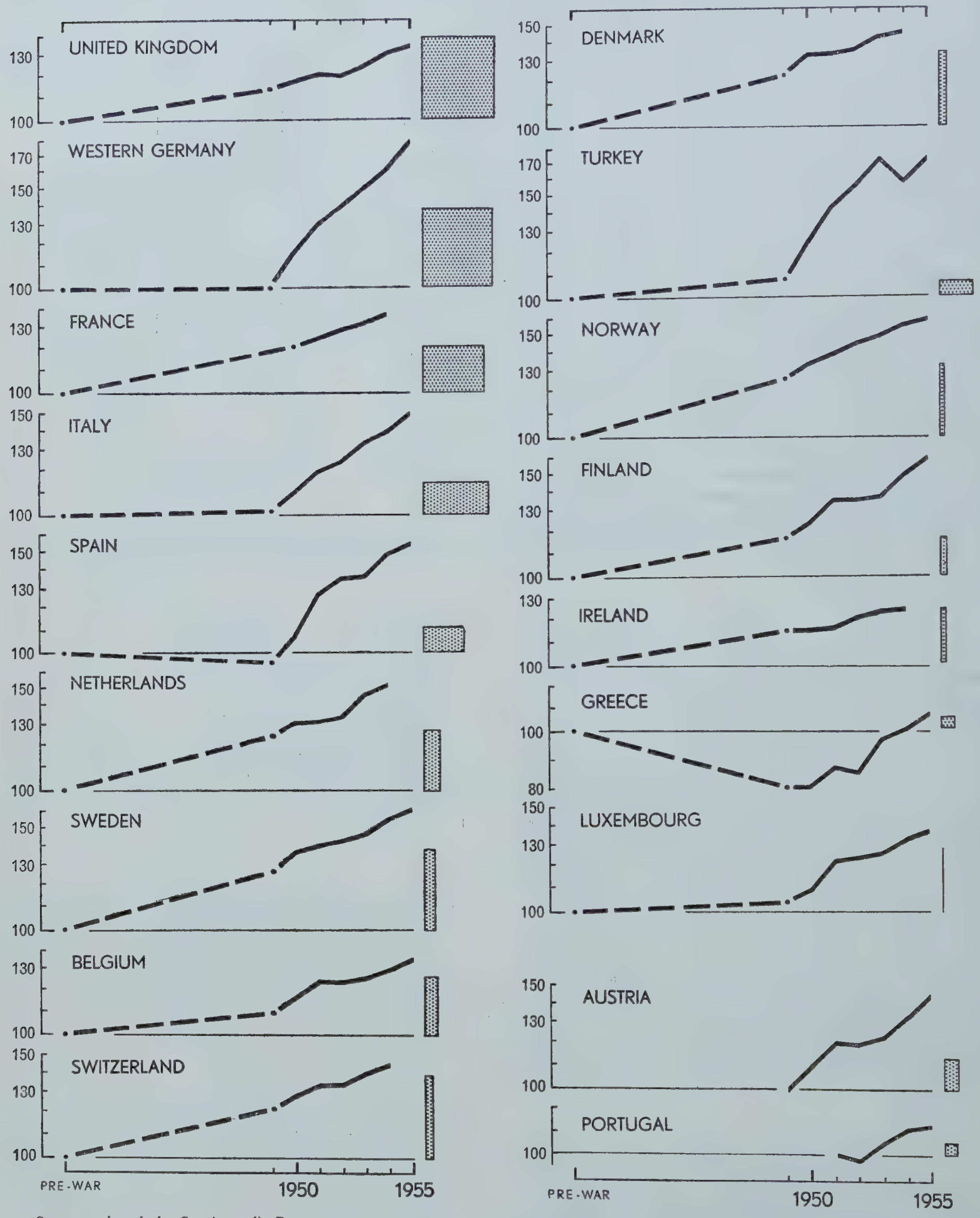
[7] For the United Kingdom the base year is 1937, and this tends to under-estimate (by perhaps 5 per cent) the relative rise in output in the United Kingdom as compared with other countries. Similarly, the base year 1936 for western Germany over-estimates the relative rise in output there. For Belgium the base period of 1936-1938 also under-states the post-war rise in output.

CHART 1

Index numbers of gross domestic product at constant prices

Pre-war = 100

Semi-logarithmic scale



Sources and methods : See Appendix B.

Note. — Except for Portugal and Austria, for which no pre-war base is available and which are shown at the end of the chart, countries are ranked in descending order of the size of their gross domestic product in 1954, expressed in pre-war dollars. The height of the rectangles is proportional to output per head of the total population, and their breadth to total population. For further details, see Appendix B.

A glance at the chart shows that, if the pre-war output is compared with that of 1955, western Germany, Sweden and Turkey are leading in the race of expansion, followed by Finland, Norway and Italy. Some of the highly industrialized countries such as Belgium and the United Kingdom are not in this leading group, nor are France or Denmark. At first sight these differences in rates of growth of output may appear to be connected with population movements, and to a certain extent this may be true for countries such as western Germany, the Netherlands or Turkey; but it does not apply to Italy, where the population increase does not seem to have been absorbed into employment, or to Norway where the increase in total employment was relatively small. The data do not indicate that in Europe the less developed countries are gaining relatively on the more advanced countries. There are too many exceptions to the rule and too many special factors operating only in the short period under review. This comes out quite clearly if the post-war period is looked at separately. Western Germany, for instance, emerged out of the post-war chaos only in 1948, and Austria a little later. Better utilization of equipment and absorption of unemployed labour, together with high rates of investment, led in these countries to very rapid improvements in total output. Greece presents a similar case, since political troubles delayed the recovery even longer, with the result that the pre-war level of output was reached only in 1954. The recovery of this country started from a very low level of output only in 1951, but gathered momentum rapidly during the last four years with financial aid from abroad. Turkey, also supported by foreign aid or credits and drawing on a large increase in the working population, developed very rapidly in spite of, or perhaps because of, a prevailing climate of inflation. But total output is much affected by agricultural yields, and, taking the last three years only, progress has been retarded by uneven harvests.

Growth by Sectors

It is not enough for an understanding of the development process to look only at the over-all growth. The way in which the various sectors within an economy expand is equally significant. Proportional changes in all sectors are rare; demand factors, as well as technical changes and other forces on the supply side, may bring about a decline or retarded growth in some sectors while others are forging ahead quickly.

Considering first a two-way break-down of the economy into a commodity and a services sector, it will be seen that commodity output has almost everywhere risen more than the output of services during the post-war period (see Table 3). By contrast, the

TABLE 3

Rate of increase in real net output in eighteen European countries

Country	Cumulative annual rate of increase						Index of output in 1955[a]		
	1938 *Pre-war*[b] to *1949*[c]			*1949*[d] to *1955*[a]			*Pre-war = 100*[b]		
	Commodity output	Services output	Total	Commodity output	Services output	Total	Commodity output	Services output	Total
Austria	..	..	..	7.0	4.8	6.3	..	..	..
Belgium	0.6	0.9	0.7	3.7	3.0	3.3	129	128	129
Denmark	1.8	1.9	1.8	3.3	3.2	3.3	144	144	144
Finland	0.9	2.4	1.4	5.5	5.3	5.4	152	177	159
France	1.4	1.8	1.6	3.6	3.0	3.4	136	139	138
Western Germany	−0.8	1.4	0.0	11.9	6.7	10.1	178	177	178
Greece	−1.1	−2.9	−1.9	5.8	2.9	4.7	124	86	107
Ireland	..	..	1.3	..	..	1.7	..	..	124
Italy	1.0	0.2	0.7	7.8	4.0	6.5	164	125	150
Luxembourg	−0.1	1.0	−0.3	4.0	5.3	4.6	125	152	136
Netherlands	..	..	2.0	..	..	4.3	..	..	153
Norway	2.0	2.1	2.1	4.4	3.7	4.1	161	157	159
Portugal	..	..	..	2.6	3.5	2.9	..	..	..
Spain	..	..	−0.3	..	..	8.0	..	..	154
Sweden	..	..	2.2	..	..	4.2	..	..	161
Switzerland	..	..	1.8	..	..	2.7	..	..	145
Turkey	−0.2	2.2	0.5	8.0	8.3	8.1	155	206	171
United Kingdom	1.1	0.9	1.0	3.9	1.9	3.0	144	124	134

Sources : See Appendix B.

[a] 1954 for France, the Netherlands, Switzerland, Denmark, Ireland and Belgium.

[b] For the pre-war base year, see Table 1.

[c] France, 1950.

[d] France, 1950; Portugal, 1951.

TABLE 4

Cumulative annual rates of increase in real net output by sector

Country	COMMODITY OUTPUT							SERVICES OUTPUT				Total output
	Agri-culture [f]	Industry					Total com-modity output	Trans-port and com-munica-tions	Trade [f]	Other services	Total services output	
		Mining and quarrying	Manu-facturing	Electri-city, gas and water	Con-struction	Total industry						
	Pre-war [a] to 1949 [b]											
Belgium	0.6	–0.5	0.6	4.1	1.1	0.7	0.6	1.6	1.1	0.6	0.9	0.7
Denmark	1.0	18.6	2.0	4.8	3.0	2.3	1.8	3.0	1.4	1.0	1.9	1.8
Finland	–2.1	2.6*	2.7	2.5*	5.6	3.3	0.9	3.2	0.7 [g]	2.7	2.4	1.4
France	0.4	0.9	1.4	4.6	5.2	1.9	1.4	2.3	0.7	2.3	1.8	1.6
Western Germany	–1.2	–0.4*	–0.9	3.9*	–0.7	–0.7	–0.8	1.8	–0.4	2.3	1.4	0.0
Greece	–1.7	..	..	..	..	0.1	–1.1	..	..	..	–2.9	–1.9
Italy	0.1	0.2	1.8	3.9	1.7	1.8	1.0	2.3	0.0 [g]	–0.4	0.2	0.7
Luxembourg	–0.7	–3.4	0.8	1.7	–1.6	0.0	–0.1	..	..	..	1.0	0.3
Norway	–0.7	–2.1	3.0	5.6	4.4	3.2	2.0	2.4	1.9	1.3	2.1	2.1
Turkey	–1.0	5.1	3.0	6.3	–1.2	2.4	–0.2	3.6	–0.2	2.9	2.2	0.5
United Kingdom	2.7	–1.2	1.6	4.7	–1.6	0.9	1.1	2.0	0.0	0.0	0.9	1.0
	1949 [b] to 1955 [c]											
Austria	6.4	——7.2——		10.0	6.0	7.3	7.0	3.3	7.5	3.8	4.8	6.3
Belgium	2.9	1.1	4.0	3.2	6.2	3.8	3.7	2.7	1.2	3.7	3.0	3.3
Denmark	3.9	–16.3	2.3	9.9	5.8	3.1	3.3	4.3	3.7	2.3	3.2	3.3
Finland	2.7	11.3*	7.9	9.4*	3.6	7.1	5.5	6.4	7.7 [g]	3.1	5.3	5.4
France	3.0	3.5	3.7	5.2	4.7	3.9	3.6	3.8	4.3	2.1	3.0	3.4
Western Germany	4.9	6.9*	14.1	11.3*	13.1	13.3	11.9	6.9	11.1	4.1	6.7	10.1
Greece	4.2	25.2	7.2	12.3	8.3	8.1	5.8	4.9	6.1	0.4	2.9	4.7
Italy	3.9	18.8	9.3	19.8	8.0	10.4	7.8	6.9	4.7 [g]	2.0	4.0	6.5
Luxembourg	3.9	7.5	3.0	8.7	6.8	4.1	4.0	..	..	..	5.3	4.6
Norway	1.1	6.4	5.5	5.7	5.6	5.6	4.4	4.9	4.8	1.9	3.7	4.1
Portugal	–2.2	–1.4	6.2 [d]	15.1	[e]	6.4	2.6	4.4	4.4	3.0	3.5	2.9
Turkey	8.0	8.6	7.0	11.7	10.7	8.0	8.0	10.6	7.8	7.7	8.3	8.1
United Kingdom	1.4	0.8	4.8	6.2	0.7	4.2	3.9	3.3	2.7	1.3	1.9	3.0

Sources: See Appendix B.

[a] See Table 1.

[b] France, 1950; Portugal, 1951.

[c] See Table 3, note *a*.

[d] Including construction.

[e] Included under manufacturing.

[f] In this and all subsequent tables in this chapter, agriculture includes forestry, hunting and fishing; trade, unless otherwise stated, refers to wholesale and retail trade.

[g] Including banking and insurance.

output of services rose generally faster than that of commodities between 1938 and 1949. The explanation for this different behaviour of services in the two periods cannot be a simple one. It is likely that the readaptation to peace-time production took longer and was more complex in the commodity-producing sector, giving it, in 1949 as compared with 1938, a lower rate of growth. A shortage of goods during the war and in the early post-war period diverted demand to the services sectors and led to a fuller utilization of their capacity: the suppression of specific demands (say for private motoring) gave rise to greater output of other forms of transport: incomes originating in the government sector in 1949 were still in a stage of over-expansion. The slower growth of services than of commodity output since 1949 may therefore be a temporary phenomenon.

Quite apart from the fact that there was no such thing as a steady rate of growth between 1938 and 1949, because the war distorted and interrupted developments, the movements of the constituent industry groups of the two broad sectors reveal something of the uneven rate of progress within the economy. Agricultural net output grew very slowly and in some cases declined; mining also generally lagged. In both cases a shortage of manpower and of capital investment were contributory causes. Output of manufacturing industry increased in most countries more than total commodity output, but less fast than the output of public utilities.

Some of the retardation of growth during the period 1938 to 1949 has since been made good. Practically all negative signs in the table, indicating a decline in the sector's output, have disappeared. The real output of agriculture and mining has increased vigorously in many countries, but manufacturing industry and public utilities have continued to grow even faster, and so, in general, have the construction industries. In the services sector the industrial break-down is, for statistical reasons, much cruder, and the " other services " include such heterogeneous elements as the armed forces and domestic servants, ownership of dwellings and the liberal professions. This mixed group of other services has, as a rule, risen less than the services more closely geared to commodity output —namely, transport and trade. But they in turn have frequently expanded less than commodity output as a whole. In the case of transport a possible underestimation of the volume of road transport and the expansion of private motoring, which is of course not included in any of the industry tables, may explain the slower rate of growth. The slower expansion of the net output of distribution may be associated with a tendency for industry to absorb distributive services, such as packing, storing and so forth. The post-war development may not be typical, but even if a comparison is made over the longer period 1938 to 1955, there is still no sign that the services sector and its constituent items have developed as fast as commodity output. There are a few countries in which services have grown faster than commodity output, but it cannot be said that this happened mainly in the industrial or advanced countries and less so in agricultural countries.

Developments within the commodity sector over the period as a whole (1938 to 1955) also reveal some significant differences in growth rates. Real net output of agriculture increased very little in the agricultural and semi-agricultural countries (Denmark being a notable exception), but it did rise in the industrial countries, though even there at a rate of less than one per cent per annum. As agricultural output during and immediately after the war was frequently below the pre-war level, the recovery since 1949, mentioned above, effected in many countries hardly more than a lifting of output slightly above the pre-war level.

Progress in mining has also been generally slow in most countries, but some of the agricultural countries are notable exceptions. In Denmark the spectacular war-time expansion of the production of peat represented no more than a temporary development of a very small and relatively unimportant sector.

The sluggish development in these primary industries contrasts sharply with the expansion in manufacturing industries, public utilities and construction. Real net output of electricity, gas and water is in many countries twice as high as before the war and the rate of expansion has often been higher in agricultural countries than in industrial ones. In this field the gap between developed and less developed countries seems to be narrowing and the expansion of the electric power sector lays the foundation for meeting the future needs of other industries.

The net output of manufacturing industry at constant prices was in 1955 generally running well above the pre-war level, but even so an average rate of growth of 3 per cent per annum is very rarely exceeded. In France, Luxembourg, Belgium and Denmark, the rate of progress was not more than one or two per cent. Only a few countries show a higher rate of expansion and each case has its special feature and represents different social and economic systems. Turkey, being a predominantly agricultural area embarking on industrialization since 1934 under government initiative, ownership and policy; Germany, a highly industrialized private enterprise economy run by and large on *laissez-faire* principles; Norway, a mixed economy with public ownership in some fields and varying policies of governmental control and guidance; Finland, an agricultural country, industrializing rapidly in a period when it was cut off from its natural market and suppliers and obliged to make heavy reparation deliveries, mainly of manufactured goods. In the last two countries the expansion was associated with prolonged and fairly sharp rises in prices; in Germany expansion was achieved with relative price stability. The United Kingdom is, like Norway, a mixed economy with direct controls operating for much of the period.

The expansion of individual sectors is of some interest in tracing the active and dynamic growing points within European economies. Public utilities, manufacturing and construction are paramount areas of growth in most countries. But the size of the sectors is very unequal and a rapid expansion of one group of industries may contribute little towards the expansion of the economy as a whole. The relative contribution made by each industry group to aggregate growth in each country is therefore given in Table 5. In a few cases where the industry's net output has declined over the period, negative contributions are shown.

The table brings out clearly that commodity output accounted in almost all countries for more than half of the total increment of output, and manufacturing

TABLE 5

Percentage contribution of sectors to the increase in real output

Percentage of total

Country	Agriculture	Mining and quarrying	Manufacturing	Electricity, gas, water	Construction	Total commodity output	Services
			Pre-war to 1955 [a]				
Belgium	6.8	−0.2	34.0	4.6	7.7	52.9	47.1
Denmark	17.4	0.3	26.0	4.2	9.8	57.7	42.3
Finland	−5.2	0.7*	52.3	3.2*	12.8	63.8	36.2
France	10.1	2.1	30.4	3.3	11.7	57.6	42.4
Western Germany	3.7	2.5*	50.2	4.5*	7.3	68.2	31.8
Italy	13.9	2.3	51.2	4.3	10.8	82.5	17.5
Luxembourg	5.1	1.0	28.0	2.6	5.7	42.4	57.6
Norway	0.3	0.3	39.5		10.7	50.8	49.2
Turkey	32.2	2.4	14.9		3.0	52.5	47.5
United Kingdom	6.9	−1.2	56.6	5.6	−1.9	66.0	34.0
			A year near 1950 to 1955 [a]				
Austria	14.3	47.2		5.7	5.7	72.9	27.1
Greece	33.2	3.8	31.0	2.3	6.6	76.9	23.1
Portugal	−22.6	−0.4	73.3 [b]	8.4	.. [c]	58.7	41.3

Sources: See Appendix B.

[a] 1954 for France, Denmark and Belgium.

[b] Including building.

[c] Included under manufacturing.

industry alone for more than a third and sometimes, as in the United Kingdom and Finland, for more than half. Only in a few of the countries listed does manufacturing industry contribute less than a third to the increase in total product. As one would except, these are mainly the agricultural countries, Turkey and Greece, where, in spite of a slow expansion in agriculture, its total contribution to the change in output is still greater than that of manufacturing industry. Denmark is a border-line case, where industry contributes more than agriculture to the total rise, but not much more. Luxembourg is a special case where industry makes a large contribution to the growth of the commodity sector, but a much smaller one to the increase in total product because of the great importance of service output in this country. The sluggish growth of agriculture and mining is reflected in the small contribution they make to the growth of output in all but the agricultural countries, while the rapidly growing sectors of public utilities and construction account in a number of countries for 10 per cent or more of the total expansion.

The contribution of the service sectors to the overall expansion lies generally between one-third and two-fifths, but is higher in Belgium, Norway, Denmark and Turkey. In Norway the importance of overseas shipping plays a predominant part; in Turkey the expansion of trade and transport with industrialization and the expansion of other services is of about equal importance, while in Denmark the contribution made by wholesale and retail trade to the growth of services is substantial.

The factors which made possible the expansion of the various industries cannot easily be quantified. No doubt the fuller utilisation of resources, both of capital and labour, has played an important part, particularly in industry, transport and trade. Additions to plant and equipment to create new places of work for a greater labour force must have made a significant contribution in countries or sectors with rapid employment growth. These capacity-increasing investments, together with investments which were cost-reducing or labour-saving and improved methods of organization, must have been an important factor in the process of expansion. But the distribution of investment over the various sectors and groups of industries is unfortunately unknown for most countries. Even the labour inputs are not known with any degree of accuracy, but some broad indication of changes in numbers employed by industrial sectors can be obtained for a number of countries and will be discussed in a later section.

3. CHANGES IN INDUSTRIAL STRUCTURE

The relative contribution of each industry to the total product serves as an indicator of the structure of an economy, and the changes in sector shares as a measure of the degree and direction of change. The absolute changes of output in different sectors have been discussed in the previous section and it will be remembered that over the period as a whole almost all sectors expanded. Falling shares in the product therefore indicate, with few exceptions, not an absolute decline but a slower than average growth.

A simple distinction between two broad sectors, commodity producing and service producing industries, does not reveal any clear pattern. It is true that the share of services in the total is higher in the United Kingdom, the Netherlands and Belgium than in other countries, but it is as low in western Germany or Austria as it is in Italy or Turkey, about the same in Norway as in Denmark, but considerably lower in Finland. Countries with very different structures show services contributing similar shares to total output. Nor is there any conclusive evidence that the share of services increases as output or productivity rises. It has remained about constant at the pre-war level both in countries with a high share of services, like the United Kingdom and Belgium, and in countries with a low share like Germany and Austria. It fluctuates slightly around the pre-war level in Norway, France and Denmark. Within the agricultural countries it tends to fall in Italy and Greece and to rise significantly in Finland and Turkey.

If the classification of national product into commodities and services does not provide any clear criteria revealing structural differences between rich and poor, agricultural and industrial countries, the reason may be that the service group contains too many heterogeneous items and some items, such as public administration, which are not necessarily associated with the stage of economic development. Ratios of more narrowly defined service sectors may be slightly better indicators of economic structure, and this point will be examined later.

It would seem that the composition of the commodity-producing sector offers better criteria for grouping countries according to their stage of development. Table 7 gives the share of agricultural[8] and of manufacturing output in total commodity output. If countries are ranked in ascending order according to the share of agriculture in commodity output and in descending order according to the share of manufacturing the results are very similar.

The countries listed can be divided into four groups according to the ratio of the share of agriculture to manufacturing industry in commodity output in 1954:

(1) The highly industrial countries with a low share of agriculture and a high share of manufacturing, in the ratio of 1 : 4 or more. They include the United Kingdom, Belgium and western Germany.

(2) The semi-industrial countries with a ratio of 1 : 2 or 3, where industry contributes twice or three times as much to total commodity output as agriculture. This group consists of Luxembourg, the Netherlands, Norway, Austria and France.

(3) The semi-agricultural countries where manufacturing industries contribute up to 50 per cent more than agriculture (a ratio of 1 : 1½) consisting of Denmark, Finland and Italy.

(4) The predominantly agricultural countries in which the share of agriculture is equal to or greater than—sometimes very much greater than—that of manufacturing industry. This group consists of Portugal, Ireland, Greece, Spain and Turkey.

The first two groups of countries will be referred to as " industrial "; the last two as " agricultural " countries. As agriculture and manufacturing industry together[9] account for three-quarters or more of commodity output in all countries listed in the table, it is perhaps not surprising that their relative importance provides a plausible measure of the degree of industrialization.[10]

A recent year has been used to group the countries according to this statistical criterion, but a comparison of sector shares before and after the war will also serve to show something of the dynamics of industrialization.

In the industrial countries the share of manufacturing industry seems to be still rising, while agricultural net output, in spite of much government support and protection, seems just to hold its own (United Kingdom and Belgium) or to decline (western Germany). At the other extreme, in the only two agricultural countries (Greece and Turkey) for which sector data for the whole period are available, the share of

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[8] The sector " agriculture " includes fishing, hunting and forestry. For sector definitions, see Appendix B.

[9] The picture would be blurred if the output of the mining and quarrying sector were added to that of agriculture, so as to get what is sometimes referred to as " primary industries ", or if industry were defined in a broader sense so as to include construction and public utilities.

[10] If the distribution of manpower, or capital intensity, or income per head, or power per unit of output, were used as the classifying criterion, the grouping, particularly in the two middle classes of countries, would be different. The choice of criterion must depend on the context of the study, and for this analysis the output ratios seemed to be the most relevant criterion.

TABLE 6

Share of sectors in gross domestic product, pre-war to 1955, at constant prices

Percentages

Country	Year	Commodity output	Services			
			TOTAL	Transport and communications	Trade	Other services
United Kingdom . . .	1937	51.8	48.2	6.8	15.2	26.2
	1949	52.5	47.5	7.7	13.5	26.3
	1955	55.4	44.6	7.9	12.9	23.8
Belgium	1936–38	52.1	47.9	5.9	12.3	29.7
	1948	50.1	49.9	6.8	13.0	30.1
	1954	52.3	47.7	6.3	11.5	29.9
Luxembourg	1937–38	60.1	39.9	. .	. .	. .
	1949	57.2	42.8	. .	. .	. .
	1955	55.4	44.6	. .	. .	. .
Western Germany . . .	1936	67.8	32.2	7.2	10.2	14.8
	1950	64.1	35.9	8.2	10.4	17.3
	1955	68.0	32.0	7.6	10.2	14.2
Sweden [e]	1950	62.3	37.7	8.6	. .	. .
Netherlands	1950	53.6	46.4	7.8	13.1	25.5
Norway	1938	57.3	42.7	12.0 [a]	12.9	17.8
	1949	56.8	43.2	12.5 [a]	12.6	18.1
	1955	57.9	42.1	13.1 [a]	13.1	15.9
Austria	1951	68.9	31.1	5.1	8.1	17.9
	1955	69.3	30.7	4.7	9.2	16.8
France	1938	59.4	40.6	6.6	13.3	20.7
	1950	58.4	41.6	7.2	11.9	22.5
	1954	58.9	41.1	7.3	12.4	21.4
Denmark	1938	57.4	42.6	7.5	16.4	18.7
	1950	58.2	41.8	7.9	15.9	18.0
	1954	57.5	42.5	8.8	16.0	17.7
Finland	1938	70.1	29.9	5.5	12.8 [b]	11.6
	1950	65.7	34.3	7.0	12.9 [b]	14.4
	1955	66.8	33.2	7.2	13.4 [b]	12.6
Italy	1938	64.2	35.8	5.1	13.7 [b]	17.0
	1950	66.4	33.6	6.2	9.4	18.0
	1955	70.3	29.7	6.3	9.0	14.4
Ireland	1950	56.4	43.6	17.3		26.3
Portugal [c].	1951	66.7	33.3	4.6	8.3	20.4
Greece	1938	55.6	44.4	. .	. .	. .
	1949	60.6	39.4	6.0	11.1	22.3
	1955	64.5	35.5	6.1	12.1	17.3
Spain	1951	68.9	31.1	3.4	8.5	19.2 [d]
Turkey	1938	68.3	31.7	5.1	10.8	15.8
	1950	64.9	35.1	6.0	10.2	18.9
	1955	61.7	38.3	8.1	9.7	20.5

Sources : See Appendix B.

[a] Of which, water transport: 1938, 9.1 per cent; 1949, 7.5 per cent; 1955, 8.5 per cent.

[b] Including banking and insurance; given separately for Italy in 1950 and 1955, amounting to 3.2 and 2.5 per cent respectively.

[c] At 1954 prices.

[d] May include non-service items.

[e] At market prices.

TABLE 7

Share of sectors in commodity output, pre-war to 1955, at constant prices

Percentages

<table>
<tr><th rowspan="2">Country</th><th rowspan="2">Year</th><th colspan="5">Commodity sectors as a percentage of total commodity output</th></tr>
<tr><th>Agriculture</th><th>Mining and quarrying</th><th>Manufacturing</th><th>Electricity, gas, water</th><th>Construction</th></tr>
<tr><td>United Kingdom . . .</td><td>1937</td><td>9.3</td><td>8.9</td><td>63.7</td><td>2.5</td><td>15.6</td></tr>
<tr><td></td><td>1949</td><td>11.2</td><td>6.9</td><td>66.9</td><td>3.8</td><td>11.2</td></tr>
<tr><td></td><td>1955</td><td>9.6</td><td>5.6</td><td>70.6</td><td>4.3</td><td>9.9</td></tr>
<tr><td>Belgium . . . .</td><td>1936–38</td><td>16.1</td><td>12.9</td><td>60.3</td><td>2.9</td><td>7.8</td></tr>
<tr><td></td><td>1948</td><td>13.8</td><td>11.0</td><td>61.9</td><td>4.2</td><td>9.1</td></tr>
<tr><td></td><td>1954</td><td>15.3</td><td>9.9</td><td>61.2</td><td>4.2</td><td>9.4</td></tr>
<tr><td>Luxembourg . . . . .</td><td>1937–38</td><td>19.6</td><td>9.3</td><td>55.9</td><td>1.7</td><td>13.5</td></tr>
<tr><td></td><td>1949</td><td>18.4</td><td>6.5</td><td>61.7</td><td>1.9</td><td>11.5</td></tr>
<tr><td></td><td>1955</td><td>18.2</td><td>7.9</td><td>58.0</td><td>2.5</td><td>13.4</td></tr>
<tr><td>Western Germany . .</td><td>1936</td><td>21.8</td><td>6.5 *</td><td>60.1</td><td>2.4 *</td><td>9.2</td></tr>
<tr><td></td><td>1950</td><td>19.3</td><td>6.2 *</td><td>60.7</td><td>4.1 *</td><td>9.7</td></tr>
<tr><td></td><td>1955</td><td>14.6</td><td>5.1 *</td><td>66.1</td><td>4.3 *</td><td>9.9</td></tr>
<tr><td>Sweden . . . .</td><td>1950</td><td>21.0</td><td colspan="3">66.8</td><td>12.2</td></tr>
<tr><td>Netherlands . . . . .</td><td>1950</td><td>24.6</td><td>3.7</td><td>58.6</td><td>3.0</td><td>10.1</td></tr>
<tr><td>Norway . . . .</td><td>1938</td><td>36.5</td><td>3.5</td><td>45.4</td><td>2.4</td><td>12.2</td></tr>
<tr><td></td><td>1949</td><td>27.3</td><td>2.3</td><td>50.9</td><td>3.7</td><td>15.8</td></tr>
<tr><td></td><td>1955</td><td>22.5</td><td>2.4</td><td>54.0</td><td>4.0</td><td>17.1</td></tr>
<tr><td>Austria . . . .</td><td>1951</td><td>24.5</td><td colspan="2">60.6</td><td>4.6</td><td>10.3</td></tr>
<tr><td></td><td>1955</td><td>25.1</td><td colspan="2">60.2</td><td>5.6</td><td>9.1</td></tr>
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<tr><td></td><td>1954</td><td>30.2</td><td>4.4</td><td>52.6</td><td>2.9</td><td>9.9</td></tr>
<tr><td>Denmark . . . . . .</td><td>1938</td><td>37.8</td><td>0.2</td><td>51.0</td><td>1.9</td><td>9.1</td></tr>
<tr><td></td><td>1950</td><td>36.6</td><td>0.3</td><td>50.0</td><td>2.8</td><td>10.3</td></tr>
<tr><td></td><td>1954</td><td>35.5</td><td>0.2</td><td>49.3</td><td>3.5</td><td>11.5</td></tr>
<tr><td>Finland . . . .</td><td>1938</td><td>52.6</td><td>0.4 *</td><td>36.7</td><td>2.0 *</td><td>8.3</td></tr>
<tr><td></td><td>1950</td><td>37.6</td><td>0.5 *</td><td>45.7</td><td>2.3 *</td><td>13.9</td></tr>
<tr><td></td><td>1955</td><td>32.5</td><td>0.6 *</td><td>51.2</td><td>3.0 *</td><td>12.7</td></tr>
<tr><td>Italy . . . .</td><td>1938</td><td>48.6</td><td>1.3</td><td>43.5</td><td>2.4</td><td>4.2</td></tr>
<tr><td></td><td>1950</td><td>43.5</td><td>1.1</td><td>47.4</td><td>3.5</td><td>4.5</td></tr>
<tr><td></td><td>1955</td><td>36.1</td><td>1.8</td><td>50.8</td><td>3.6</td><td>7.7</td></tr>
<tr><td>Ireland . . . .</td><td>1950</td><td>55.5</td><td colspan="4">44.5</td></tr>
<tr><td>Portugal . . . . . .</td><td>1951</td><td>48.1</td><td>1.2</td><td>48.8</td><td>1.9</td><td>. . [a]</td></tr>
<tr><td>Greece . . . .</td><td>1938</td><td>65.6</td><td colspan="4">34.4</td></tr>
<tr><td></td><td>1949</td><td>61.4</td><td>0.6</td><td>31.2</td><td>1.2</td><td>5.6</td></tr>
<tr><td></td><td>1955</td><td>56.1</td><td>1.9</td><td>33.8</td><td>1.7</td><td>6.5</td></tr>
<tr><td>Spain . . . .</td><td>1951</td><td>59.1</td><td>2.5</td><td>32.7</td><td>1.6</td><td>4.1</td></tr>
<tr><td>Turkey . . . .</td><td>1938</td><td>79.8</td><td>1.5</td><td>13.4</td><td>0.3</td><td>5.0</td></tr>
<tr><td></td><td>1950</td><td>75.5</td><td>2.0</td><td>16.5</td><td>0.6</td><td>5.4</td></tr>
<tr><td></td><td>1955</td><td>73.3</td><td>2.6</td><td>18.0</td><td>1.0</td><td>5.1</td></tr>
</table>

Sources : See Appendix B.

[a] Included in manufacturing.

agriculture is lower than before the war and that of manufacturing industry higher: slightly higher in Greece but much higher in Turkey where industrialization has gathered speed since 1934.

The greatest structural changes in the relative importance of the two industry groups seem to have occurred in some semi-agricultural countries and in one semi-industrial country. While agriculture contributed more than half of commodity output before the war in Finland, it provided in 1955 barely a third. At the same time, the share of manufacturing industry rose from 37 per cent to over 50 per cent. Active government support and heavy reparation commitments to deliver manufactured goods contributed to this drastic change-over. In Italy agriculture's share in commodity output has also diminished substantially, from about one-half to about a third, and the relative contribution of manufacturing industry is rising and amounts now to about one-half, compared with two-fifths before the war. In Norway, the relative decline of agriculture and the shift towards industry have been equally sharp. In fact, Norway before the war would have been classified on the statistical criterion used here as a semi-agricultural country, and moved up during the period into the group of semi-industrial countries. The far-reaching changes in these countries are in contrast with the smaller adjustments made in most semi-industrial countries and in Denmark. Although in many of these latter countries the share of agriculture declined slightly, that of manufacturing industry did not increase noticeably. To judge from current price data, this would seem to hold good also for the Netherlands, for which real output data for sectors are not available.

It is clear, then, from Table 7 that in almost all countries the share of manufacturing is rising, strongly in some countries in all four groups, more slowly in others, while the share of agriculture is falling in all but some of the industrial countries where, it should be remembered, the share of agriculture was already very low before the war.

Among other constituent items of the commodity sector, mining and quarrying accounts for 5 per cent or more of commodity output only in the industrial countries and Luxembourg. It is of some importance also in France and the Netherlands, but contributes little to commodity output in all other countries. But while the relative importance of mining is declining in many of the advanced countries (United Kingdom, Belgium, Luxembourg and in western Germany), it is rising in many of the agricultural countries (Finland, Italy, Greece, Turkey). This is part of the industrialization process of these countries, but their increased absolute contribution to European mining output is, of course, small compared with that of the industrial countries.

The share of public utilities (electricity, gas and water) in commodity output is also small in all countries, but the differences between agricultural and industrial countries are less striking than in the case of mining or agriculture. In all countries this sector has grown faster than commodity output as a whole, and it is safe to assume that it is mainly the development of electricity that has led to its absolute and relative expansion.[11]

The share of construction and building in commodity output is distinctly higher in the industrial countries than in the main agricultural countries, and in many countries higher after the war than it was before. But the development has been uneven within each of the four groups of countries. Among the industrial group the United Kingdom shows a sharply falling share for constructional net output. Even if allowance is made for the fact that 1937 was a year of high building activity, it is somewhat surprising that the large building programme of 1955 should represent a so much smaller share in total commodity output. It is now of the same order of magnitude in the United Kingdom as in western Germany and Belgium, where the share of construction has risen slightly since before the war. Among the semi-industrial countries the proportion of net output contributed by construction is particularly high and rising in Norway, while in the Netherlands, France and Austria it is at about the same level as in the more industrialized countries and generally higher after the war than before. Among the semi-agricultural countries, Denmark and Finland show a high and rising share for construction, while Italy's low share puts it nearer to the agricultural countries, Greece and Turkey. Here again it is difficult to say why, in two rapidly expanding countries such as Italy and Turkey, the share of constructional activities should be so much lower than, say, in the industrial countries. It has risen strongly in Italy from a very low figure during the 'fifties, while in 1955 in Turkey it was no higher than it was in 1938 and slightly smaller than in 1950. It is possible that much of the building work escapes the official estimators, particularly in agricultural areas. It may also be argued that in southern countries less building output is required in relation to commodity output, on the average as well as at the margin, or that poverty and the lack of savings limit public, and still more private, constructional activities more than in the richer countries of central and northern Europe.

The outstanding changes in the composition of commodity output since before the war have thus

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[11] Comparability of relative shares between countries is impaired by the fact that in some countries part of the energy output produced in manufacturing industry (steelworks, etc.) is included in their net output. This would seem to apply to Luxembourg, France and western Germany, as well as to some others.

TABLE 8

Combined share of trade and transport in real output in 1954

Country	Total output (1)	Commodity output (2)	Country	Total output (1)	Commodity output (2)	Country	Total output (1)	Commodity output (2)
Norway	25.8	44.2	France	19.7	33.4	Italy	15.4	22.2
Denmark	24.8	43.1	Greece	17.5	27.1	Austria	13.3	19.0
Netherlands	20.9[a]	39.0[a]	Belgium	17.8	34.0	Spain	12.0[b]	17.3[b]
United Kingdom	20.9	38.3	Western Germany	17.6	26.0			
Finland[c,d]	20.6	30.8	Turkey[d]	17.8	28.8			
			Ireland	17.3[a]	30.4[a]			

Sources: See Appendix B. [a] 1950. [b] 1951. [c] Including banking and insurance. [d] 1955.

been the decline in the share of agriculture and the increase in the share of manufacturing and public utilities. The relative net contribution of mining is generally lower now than before the war in the industrial countries and higher in the agricultural countries. Almost without exceptions the share of primary industries has declined and that of secondary industries has increased; but only in a few countries (Norway, Finland, Italy and Turkey) have these structural changes been striking and, if western Germany be added as a marginal case, it appears that large structural changes were associated with particularly rapid growth. It is not suggested, however, that one is the cause of the other; the structure-changing forms of growth were often, though not always, initiated by government-sponsored policies, and the chances of further shifts towards secondary industries diminish the greater their share is already in total output.

The Share of Services in Total Output

It has been said already that the shares of the services sector in total output do not bear any close relation to the degree of industrialization or, for that matter, to income per head of total population. If the countries are ranked according to the share of services at the end of the period, they fall into four groups:

Share of Services in Total Output

45–48 per cent: Belgium, Luxembourg, Netherlands, United Kingdom
41–43 per cent; Denmark, Norway, France, Ireland
35–38 per cent: Greece and Turkey
30–33 per cent: Portugal, Finland, Spain, Italy, Austria, western Germany

It is true that the industrial countries are mainly in the two top groups and the agricultural countries mainly in the two last groups, but there are also very odd exceptions: Ireland has slipped up into the second group and Germany and Austria have moved down into the bottom group. Finland and Italy have a smaller share than Greece and Turkey which are certainly less developed. The exceptions are too numerous and too important to risk any generalizations about the connexion between the share of services in output and the state of economic development. (See Table 6.)

It is doubtful whether real output figures for the services sectors are truly comparable, since estimations of current price series are generally more difficult than for commodities and the methods of deflation differ greatly.[12] The discrepancies are particularly large in the important group of " other services "—which includes such diverse activities as housing services and domestic services, public administration and defence, health and education, banking and entertainment—and it is known that coverage, estimation and measurement of physical output differ widely for this group. They differ also for the two service sectors shown separately—transport and trade—but probably to a smaller extent.

It could be argued that the two latter service industries are more closely geared to commodity production than, say, defence or housing and may, therefore, be more directly related to the state of development of a country. The data do not support the hypothesis that the share of transport and trade is systematically lower in agricultural than in industrial countries, as Table 8 shows.

So far as the share of services in total output is concerned, there are half a dozen countries of very diverse economic development showing a percentage of about 18 per cent, suggesting that trade and transport are a constant proportion of output, irrespective of economic development. The countries with a higher share are also a non-homogeneous group. The high share of Norway is readily explained by the great importance of shipping in its national product. Water transport accounted in 1955 for 8.5 per cent of the total product, and the transport sector is as big as the trade sector, while in all other countries it is considerably smaller. The Danish situation is again very different and is characterized by a very high percentage share for trade. But in Denmark, as well as in the Netherlands, the United Kingdom and Finland, the share of transport is relatively high and of about the same order of magnitude (7 to 9 per cent). In most other countries, with the exception of France, it is lower, and the contribution of shipping and associated services may well explain the major difference between the first and the second group of countries. The figures for the third group of countries are almost certainly under-estimations.

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[12] See Appendix B.

If trade and transport are related to commodity output only (see column 2 of Table 8) the figures lend some slender support to the view that these services contribute generally a somewhat higher fraction to output in industrial countries than in the agricultural countries (with the exception of Austria and western Germany on the one side, and Denmark on the other).

There is no obvious connection between the share of wholesale and retail trade taken by itself and the degree of industrialization. Some of the agricultural countries (Spain and Turkey, but not Greece) show a lower share for trade than most of the industrial countries (with the exception of western Germany and Austria). The Danish share for trade is distinctly higher than that of most other countries and, since the estimate is based on fairly firm data, the explanation must be sought in economic conditions. As can be seen from Table 13 income per head in trade is well above the average in Denmark and in Finland. For all other countries the share of trade in total output lies between 11 and 13 per cent without any tendency for it to be higher in the more industrialized countries, like the United Kingdom and Belgium, than in the more agricultural countries such as Finland and Greece. (See Table 6.)

The expansion of the European economy since before the war, and particularly in the post-war period, has not affected the share of trade very much; nor have the structural changes which have occurred within the economy. The share of trade in total output is lower now than it was before the war in some of the industrial countries (United Kingdom, Belgium and France) and it has remained about the same in others (western Germany and Norway). Among the agricultural countries some (Finland and Greece) show a higher post-war share, others (Italy and Turkey) a lower one, while in Denmark trade has about the same high share before the war as after. There is no clear tendency for the share of trade to rise in rapidly expanding countries, like western Germany, Italy or Turkey and it seems to be falling in at least some of the more slowly growing industrial countries.

The development is very different in the transport and communications sector, the share of which seems to be higher after than before the war in almost all countries (Belgium is an exception) and significantly higher in some of the agricultural countries like Denmark, Finland and Turkey.

The group of miscellaneous services shows no clear pattern of development during the period. Its post-war share is lower in the United Kingdom, Norway and Italy, higher in Belgium and Turkey, but in most countries it is fairly near the pre-war level after a temporary rise in the early post-war period.

Not many generalizations about the mode of growth and the changes of structure of European economies can be made on the bases of these accounting data of sector shares in national product. Nor is it easy to draw any positive conclusions without considering the institutional factors and the special circumstances that have shaped past policies and events in the different countries. The period under consideration is too short and too disrupted by war to justify a confident extrapolation of trends. Some of the special factors, like foreign aid, which helped development during the period may not be available on a similar scale in future, and in some countries the accelerated rate of growth caused by them may not be sufficient to maintain the momentum.

The most general and important feature of developments in the last eighteen or twenty years has been a shift in output structure from primary industries to secondary industries, and especially to manufacturing and public utilities, in most industrial and some agricultural countries; but the shift has been less marked in the latter than in the former.

The relative contributions made by the commodity sectors and the service sectors differ considerably in various countries for institutional, political (defence) and economic reasons, but they do not seem to be associated with the stage or rate of development and have not changed much from the pre-war to the post-war period. For the two sub-groups of the services sector which are sufficiently uniform in coverage to be treated separately (transport and trade) it may be held, though with many qualifications, that their share in commodity output and in total output is often higher in industrial than in agricultural countries, and that the relative importance of transport and communications is rising over time while that of retail trade shows no clear trend during the period.

Some of these changes may be labelled as going in a desired direction, such as the growing share of manufacture and public utilities in some agricultural countries, but it is not so certain that the falling share of mining is consistent with European needs and balance of payments positions, or that the share of agriculture should contract in the industrial as well as in the agricultural countries. Moreover, although a more rapid expansion of commodity output than of services output may be regarded as a good thing at certain stages of development or in particular circumstances, it may sometimes be more important and more conducive to further progress to have a more rapid expansion of services such as education and research. There is no rate or mode of growth that is appropriate to all countries in all circumstances and, in any case, the powers of government to change the structure of an economy are limited by economic as well as political considerations.

4. Changes in Real Output and Manpower

The pattern of growth and the structural changes of western European economies as shown by the national accounting data having been reviewed, this section will relate the output data to employment figures, in order to get some clues to the changes in at least one of the inputs that have helped to bring about this growth. Labour is an important input in most industries; but, as has already been explained in the introductory section, mere numbers of manpower do not reveal the true labour input. Other inputs are not easily measurable in physical terms, but the net results of changes in the quality and intensity of work and in the amount and quality of co-operating factors (such as capital and management) can be inferred from changes in output per person employed.

Details of the assembly of the manpower figures are given in Appendix B. For many countries the data are not fully comprehensive, nor are they very satisfactory with regard to industry classification and the number of years covered. Population census data are usually available only for one pre-war and one post-war year, the latter generally in the period 1947 to 1951.

Three major limitations of the data presented in the tables in this section must be kept in mind throughout:

(i) Unpaid female family helpers represent widely varying proportions of total manpower in different countries. These differences are especially important in agriculture and also, but to a much lesser extent, in certain services like distribution. As the inclusion or exclusion of this class of workers can make a substantial difference to the distribution and the trend of employment, and as this also affects calculations of output per head, the tables generally show two sets of figures, one inclusive and the other exclusive of unpaid female family helpers. A further difficulty arises from the fact that unpaid family helpers are not defined in the same way in all countries or in successive censuses in the same country. Sometimes their number is known only—and with a considerable margin of error—for agriculture (Italy); but in France, Turkey, Greece, Spain and Portugal it cannot even be estimated. It will be found, however, that even where the removal of unpaid female family helpers affects the share of agriculture in total employment, the ranking of countries according to the degree of their dependence on agriculture remains practically the same as when the share in total output is taken as the criterion.[13]

(ii) The data refer to numbers employed, except in Norway and the Netherlands where estimates of full time or man year equivalents are available, and no attempt has been made to correct the figures to allow for changes in the length of the working week or for different degrees of utilization of labour resources in different sectors. For instance, the total manpower may be less fully employed on productive tasks in agriculture than in industry. That may not matter much where the agricultural sector is small, as in the United Kingdom, or where family helpers are a small fraction of the labour force, but it becomes important in mainly agricultural countries. The inadequacies of the data are perhaps not really serious when one considers trends of total employment, but they need qualification when one discusses the pattern of employment between sectors. Finally, it must be kept in mind that 1938 was in many countries a year of recession, and that in a recession year the numbers employed tend to decline less than output. Comparisons with 1938 may therefore tend to under-state the change in employment and hence to over-state the progress of output per head since that date.

(iii) Whilst the number of unemployed persons is generally known and can thus be excluded from the total labour force, there are a few countries where this can not be done and where the apparent changes in the distribution of total employment between sectors may therefore give a distorted picture of the facts (Italy, Turkey, Portugal, Spain).

Table 9 shows side by side the changes in employment and output for three periods—(*a*) from a pre-war year (usually 1938) to 1949 or 1950—that is, through the war years and the transition period; (*b*) for the post-war period from 1949 or 1950 to 1954 or 1955; and (*c*) for the whole period from 1938 to 1954 or 1955. Even after allowances are made for the margins of error in many of the employment data, the differences

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[13] In the discussion that follows, references, unless otherwise stated, are always to totals exclusive of female family helpers.

TABLE 9

Index numbers of output, employment and output per head, pre-war to 1955

Country	Output			Employment			Output per head		
	Pre-war [a] *= 100*		*1950* [b] *= 100*	*Pre-war* [a] *= 100*		*1950* [b] *= 100*	*Pre-war* [a] *= 100*		*1950* [b] *= 100*
	1950 [b]	1955 [c]	1955 [c]	1950 [b]	1955 [c]	1955 [c]	1950 [b]	1955 [c]	1955 [c]
United Kingdom	117	134	115	108	113	105	109	119	109
Belgium	107	129	121	105	105 E	100 E	102	124	121
Luxembourg	104	132	127	100	105 E	105 E	102	123	121
Western Germany	115	178	154	122	151 E	123 E	94	118	125
Netherlands	131	153	117	129	138	107	101	111	109
Norway	133	159	124	112	115	103	117	140	120
Austria	..	..	131	..	..	108	..	..	122
France	120	137	114	101 E	103	102	119	133	112
Denmark	132	145	110	106	110 E	103 E	124	132	107
Switzerland	128	145	113	113	119 E	105 E	113	122	108
Sweden	130	159	122	105	108 E	103 E	124	147	118
Finland	123	159	129	102	107 E	105 E	121	148	123
Italy	119	150	126	101	105 E	104 E	118	141	120
Ireland	115	124	108	99	96	97	116	129	111
Portugal	..	..	112	..	..	103 E [d]	..	..	109
Greece	80	106	132	104 E [d]	110 E [d]	106 E [d]	77	96	125
Spain	106	154	145	112 E [d]	117 E [d]	104 E [d]	95	132	139
Turkey	124	164	132	130 [d]	149 [d]	115 [d]	96	110	115

Sources: See Appendix B.

NOTE. — E = estimated, generally by means of changes in the number of wage and salary earners or changes in the total population.

[a] For the pre-war base year, see Table 1.

[b] Except for Belgium, 1948; Luxembourg, the Netherlands and Sweden, 1949; Italy, Ireland and Portugal, 1951.

[c] Except for Belgium, Luxembourg, France, Denmark, Switzerland, Ireland: 1954 ; and Turkey: 1954-55.

[d] Including unemployment.

in the rates of growth of total employment are striking and the general increase is often much smaller than might have been expected from the population changes. There are a number of industrial and agricultural countries where employment remained virtually unchanged between 1938 and 1950; these include Luxembourg, France, Finland, Ireland and, in spite of a substantial increase in population, Italy. An increase in employment of more than 10 per cent over the period considered is recorded for only four countries, Turkey (plus 30 per cent), western Germany (plus 22 per cent), Switzerland (plus 13 per cent), and Norway (plus 12 per cent). Western Germany had a large influx of refugees after the war, some unemployment in the base year (1936) and, for the first years after the currency reform, an economy working with a high labour intensity. The large percentage increase in employment in Turkey is almost entirely due to a steady natural increase in population. All other countries shown in the table have increased their employment by 5 to 10 per cent and, if allowance has to be made for a reduction in the working week by 5 to 10 per cent in a number of countries, it appears that true labour inputs were often not greater at the end of the transition period (1950) than before the war.

In the six years between 1950 and 1955 the employed labour force grew further, and in most countries at a higher annual rate. Western Germany, moving from severe under-employment to full employment, and Turkey are still leading with increases of over 10 per cent, followed by the Netherlands (9 per cent), Austria (8 per cent) and Greece (6 per cent). For most other countries the increases during this period were between 2 and 4 per cent. Only in Belgium does the employed labour force seem to have remained unchanged while in Ireland it even decreased. It is obvious, in view of the modest increase in employed resources in most countries, that the actual growth in aggregate output described in the previous section can only partly be explained by changes in employment.

The extent to which output growth exceeded employment growth is indicated in the last sections of Tables 9 and 14. These indices of output per unit of labour force, which refer to periods of slightly varying length, are remarkable in two respects; they show for most countries a low rate of increase in productivity over the period as a whole and also an uneven distribution of productivity gains among countries.

The figures for the period 1938 to 1955 imply that in the industrial countries the annual cumulative percentage increase of output per unit of labour employed was of the order of 1 per cent. Even if allowance is made for the change in the length of the working week, this is much lower than is generally suggested. It will be noted also that output per head has risen slightly less in western Germany than in Belgium and the United Kingdom, perhaps mainly because it had fallen severely in the early post-war years.

Much more substantial changes in productivity are shown by Norway, Finland and Italy, three countries which have, it will be remembered, undergone the greatest structural changes in the composition of output. This may well be part of the explanation of their larger rises in productivity. But in the case of Italy, and possibly also Finland, the rise in labour inputs may have been under-stated. The increase in productivity in Sweden is among the highest in Europe.

Productivity increases in Denmark, where no such structural changes occurred during the period under review, have also been in the neighbourhood of 2 per cent a year, and for France they have not been much lower.

Admittedly, wartime and post-war experiences have affected the countries in different ways. As Table 14 shows, high productivity increases for the period as a whole are closely associated with large gains in the years of severe disturbances from 1938 to 1950. But it is difficult to explain why some countries, such as Norway or Denmark, should have increased their productivity so much more in these difficult years than did others, such as the United Kingdom, Belgium, or the Netherlands.

Annual increases in output per unit employed during the post-war period from 1950 onwards are not more evenly spread over the countries concerned but, as one would expect, they are very much larger than for the whole period from 1938 to 1955. Annual productivity gains range from not quite 2 per cent in the United Kingdom and Denmark to about 5 per cent in Germany, other countries having rates of increase of some 3 to 4 per cent. If such short-term improvements could be maintained over the next decade, the European economies would indeed become much healthier.

There are no *a priori* reasons why such productivity gains should not continue in future. In any short period there are special factors at work which seem unique, such as the reconstruction in Germany and Austria, or the special aid given to several countries. It may also be argued first that some of the productivity-raising structural changes that have occurred cannot easily be repeated on the same scale in future, and secondly, that government policy is likely to be more restrictive—in an attempt to secure greater price stability than prevailed in most countries in the early 'fifties—and that this may influence the rate of investment. On the other hand, there are no signs that the rate of technical progress is diminishing, and past inventions are still waiting to be applied in many countries and industries. Some of the obstacles to the application of improvements may have diminished in importance: the elimination of severe fluctuations in output and employment has removed some of the risks of committing business funds, and labour shortage, and perhaps also labour unrest, has increased the attractiveness of mechanization and labour saving devices. But, the greater stability of employment may, by reducing the competitiveness of the system, have removed some of the spurs towards greater efficiency. Moreover, the productive units in many sectors of the economy are often too small to come into the range of economies of scale, and investments spread over numerous small existing units may be less productivity-raising than investments concentrated on new plants.

Finally, it may be doubted whether the incentives to work or to invest are more favourable now than they were in the half-century before the First World War. The internal and external political risks might well appear to businessmen to be greater now than they were before, and taxation has become steeper and may act as a disincentive, at least in parts of the system. By and large, then, a 3 per cent annual cumulative increase in output per head may be as satisfactory a performance for most western European economies as can be expected. But such rates of change can be maintained only if governments endeavour to keep employment high and steady and to encourage, as was explained in the previous SURVEY,[14] not only a high rate of investment but also a distribution of investments—between productive and social capital and between sectors—which will tend to maximize productivity gains.[14]

Output Per Head in Industrial Sectors

Rates of expansion and changes in productivity for the economy as a whole are the combined results of sector developments, and these are affected not only by general increases in the labour force but also by their distribution. Tables 10 and 11, giving the relative distributions of manpower and output in a post-war year for broad sectors, show that the share of commodity production in employment is in most countries higher than its share in output, and that, in particular, agriculture attracts relatively much more labour than corresponds to its output share, while industry's share in employment is generally smaller than its contribution to product (the United Kingdom and Belgium are exceptions). Among the industrial sub-sectors of commodity output, the percentage of

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[14] See *Economic Survey of Europe in 1955*, chapters 2 and 3.

TABLE 10

Structure of total employment and real net output (at constant prices), in a year between 1948 and 1951

A. *Excluding unpaid female family helpers*
B. *Including unpaid female family helpers*

Percentage of total

Country	COMMODITY OUTPUT									SERVICES		
	Agriculture			Industry			Total					
	Employment		Output	Employment		Output	Employment		Output	Employment		Output
	A	B		A	B		A	B		A	B	
United Kingdom	..	5	6	..	49	47	..	54	53	..	46	47
Belgium	12	13	7	51	50	43	63	63	50	37	37	50
Luxembourg	19	26	11	45	40	46	64	66	57	36	34	43
Western Germany	16	24	12	48	43	52	64	67	64	36	33	36
Netherlands	..	14	13	..	40	41	..	54	54	..	46	46
Norway	..	29	16	..	33	41	..	62	57	..	38	43
Austria	24	..	17	42	..	52	66	..	69	34	..	31
France	..	32 [a]	18	..	35 [a]	40	..	67 [a]	58	..	33 [a]	42
Denmark	23	28	21	37	34	37	60	62	58	40	38	42
Switzerland	16	17	..	47	47	..	63	64	..	37	36	..
Sweden	20	20	13	41	41	49	61	61	62	39	39	38
Finland	37	46	25	34	29	41	71	75	66	29	25	34
Italy	39	42	29	34	32	37	73	74	66	27	26	34
Ireland	34	..	31	27	..	25	61	..	56	39	..	44
Portugal	45	49	32	26	24	35	71	73	67	29	27	33
Greece	..	51	36	..	21	25	..	72	61	..	28	39
Spain	..	49	41	..	25	28	..	74	69	..	26	31
Turkey	..	80	49	..	6	16	..	86	65	..	14	35

Sources : See Appendix B.

[a] 1954.

NOTE. — The dates correspond in most cases to the first post-war census. The countries are ranked according to the increasing share of agriculture in total output, except for Sweden and Switzerland.

output contributed generally exceeds that of manpower absorbed both in the capital-intensive public-utilities sector and in manufacturing industry (except again in the United Kingdom and Belgium), while the opposite relation holds for building and construction and, in a number of industrial countries, for mining.

Services as a whole have a higher share in output than in employment, and this applies without exception to the sub-sector " trade " and generally also to " transport ". The group of miscellaneous services, while generally conforming to the pattern, shows more exceptions to the rule.

This is a static picture. Compared with before the war, some sectors, such as agriculture and mining, have tended to lose manpower absolutely and relatively and other sectors to gain manpower both from an increase in the active population and by transfers from declining sectors. Table 12 gives a condensed summary of these transfers and indicates their relative importance for the sectors gaining labour. From before the war up to 1950 the sectors with contracting manpower lost in many countries 15 per cent or more of their pre-war labour force. Only in the United Kingdom, western Germany and Italy were the losses smaller. This shrinkage continued after 1950 with considerable force in the countries for which data are available. As the middle part of the table shows, the losses were highly concentrated on agriculture, which accounted in many countries for 90 to 100 per cent of the manpower released. In the industrial countries—Belgium, United Kingdom and Luxembourg—other sectors also lost labour during certain periods, particularly trade (in the United Kingdom), but also mining and sometimes transport.

The third part of Table 12 brings out the quantitative importance of these transfers in relation to the total manpower growth of the expanding sectors. In countries or in periods where the employed population remained stationary, the transfers necessarily accounted for 100 per cent of the sector growth. At

TABLE 11

tructure of employment and of real net output (at constant prices) by industrial sector [a] in a year between 1948 and 1951

A. *Excluding unpaid female family helpers*
B. *Including unpaid female family helpers*

Percentage of total

Country	Mining and Quarrying			Manufacturing			Electricity, gas, water			Construction		
	Employment		Output	Employment		Output	Employment		Output	Employment		Output
	A	B		A	B		A	B		A	B	
nited Kingdom . . .	..	3.9	3.6	..	36.9	35.1	..	1.5	2.0	..	6.4	5.9
elgium	5.8	5.6	5.6	38.8	37.9	30.9	0.8	0.8	2.1	6.0	5.8	4.6
uxembourg	3.2	2.8	3.7	33.0	29.5	35.3	0.7	0.6	1.1	7.8	6.9	6.6
estern Germany . .	5.4 [b]	4.8 [b]	6.6* [b]	34.2	30.4	38.9	.. [c]	.. [c]	.. [c]	8.8	7.8	6.2
etherlands	..	1.4	2.0	..	30.3	31.4	..	0.8	1.6	..	6.7	5.4
orway	..	0.6	1.3	..	23.2	28.9	..	0.9	2.1	..	8.7	9.0
ustria	.. [d]	..	.. [d]	33.1 [e]	..	41.7 [e]	0.9	..	3.2	8.2	..	7.1
rance [m]	..	2.0	2.6	..	25.2	30.6	..	0.7	1.6	..	6.9	5.5
enmark	.. [d]	.. [d]	.. [d]	28.8 [e]	26.7 [e]	29.3 [e]	0.6	0.6	1.6	7.1	6.5	6.0
witzerland	0.3	0.3	..	37.9	37.6	..	0.8	0.8	..	8.3	8.2	..
weden [h]	.. [d]	.. [d]	.. [d]	33.2 [e i]	32.9 [e i]	41.6 [e i]	.. [d]	.. [d]	.. [d]	7.9	7.9	7.6
inland	0.4	0.3	0.3 *	26.0	22.1	30.0	0.6	0.5	1.5 *	7.3	6.2	9.1
aly	.. [d]	.. [d]	.. [d]	25.6 [e]	24.1 [e]	32.2 [e]	0.5	0.5	2.3	8.0	7.5	3.0
eland	.. [d]	..	.. [d]	27.0 [f]	..	25.1 [f]	.. [d]	..	.. [d]	.. [d]	..	.. [d]
ortugal [g]	0.8	0.8	0.8	25.6 [i j]	23.7 [i j]	33.8 [i j]	.. [d]	.. [d]	.. [d]	.. [d]	.. [d]	.. [d]
reece	..	0.6	0.8	..	16.9	20.3	..	0.4	0.9	..	2.8	3.6
pain	..	.. [d]	.. [d]	..	19.3 [e]	24.3 [e]	..	0.5	1.1	..	5.3	2.8
urkey	..	0.4	1.3	..	4.9 [i]	11.1 [i]	..	.. [d]	.. [d]	..	0.8	3.5

Country	Transport and communications			Trade			Other Services		
	Employment		Output	Employment		Output	Employment		Output
	A	B		A	B		A	B	
nited Kingdom . . .	..	7.9	7.7	..	11.3	13.5	..	26.9	26.3
elgium	7.3	7.2	6.8	11.1	11.5	13.0	18.6	18.6	30.1
uxembourg	..	..	..	..	..	..	..	..	..
estern Germany . .	6.6	5.7	8.2	10.9	10.3	10.4	18.5	16.7	17.3
etherlands	..	9.2 [l]	7.8	..	12.8	13.1	..	24.4	25.5
orway	..	8.8	12.5	..	8.8	12.6	..	20.6	18.1
ustria	6.0	..	5.1	7.6	..	8.1	20.1	..	17.9
rance [m]	..	5.1	7.2	..	9.7	11.9	..	18.5	22.5
enmark	7.5	6.7	7.9	12.2	12.6	15.9	20.6	19.0	18.0
witzerland	4.6	4.6	..	9.8	9.9	..	22.2	22.0	..
weden [h]	8.2	8.1	8.6	11.7	11.8	..	19.0	19.0	..
inland	6.4	5.4	7.0	9.2 [o]	8.1 [o]	12.9 [o]	13.4	11.4	14.4
aly	4.3	4.0	6.2	.. [p]	.. [p]	.. [p]	23.0 [n]	21.7 [n]	27.4 [n]
eland	.. [q]	..	.. [q]	13.9 [r]	..	17.3 [r]	25.4	..	26.3
ortugal [g]	3.7	3.4	4.6	7.8 [o]	7.2 [o]	8.3 [o]	17.4	16.1	20.4
reece	..	5.2	6.5	..	7.3	11.5	..	15.5	20.8
pain	..	3.9	3.4	..	6.5	8.5	..	15.7	19.1 [s]
urkey	..	2.8	6.0	..	3.5 [o]	11.8 [o]	..	7.8	18.9

Sources: See Appendix B.

[a] For agriculture, see Table 10.
[b] Including energy.
[c] Included in mining and quarrying.
[d] Included in manufacturing.
[e] Including mining and quarrying.
[f] Including mining, electricity, gas, water and construction.
[g] Output data at 1954 prices.
[h] Output data at market prices.
[i] Including electricity, gas, water.
[j] Including construction.
[l] Including hotels, cafes and restaurants.
[m] Employment figures for France refer to 1954.
[n] Including trade.
[o] Including banking and insurance.
[p] Included in other services.
[q] Included in trade.
[r] Including transport and communications.
[s] May include non-service items.

TABLE 12

Sector gains and losses in manpower

Percentages

Country	Manpower released as a percentage of employment in the " losing " sectors at the beginning of the period [a]			Manpower released by agriculture as a percentage of the total manpower released by the " losing " sectors [a]			Manpower released by the " losing " sectors as a percentage of the total intake by the " gaining " sectors [a]		
	Pre-war to 1955	Pre-war to 1950	1950 to 1955	Pre-war to 1955	Pre-war to 1950	1950 to 1955	Pre-war to 1955	Pre-war to 1950	1950 to 1955
United Kingdom	9	10	5	25	4	60	16	25	16
Belgium	..	..	10	..	..	29	..	..	100
Luxembourg	..	21	..	..	79	..	..	100	..
Western Germany	13	5	7	100	100	100	5	5	5
Norway	23	14	11	99	96	100	35	30	50
Austria [b]	..	..	16	..	..	100	..	..	19
France	11	..	..	97	..	..	59	..	..
Denmark	..	15	..	..	100	..	..	43	..
Finland	..	16	..	..	87	..	..	83	..
Italy	..	8	..	..	90	..	..	53	..
Switzerland	..	16	..	..	98	..	..	26	..
Sweden	..	23	..	..	99	..	..	57	..
Portugal	..	17	..	..	—	..	..	22	..

Sources : See Appendix B.

[a] The " losing " sectors refer to the sectors which, over the periods indicated in the table, were net losers of manpower, whilst the " gaining " sectors refer to the total of the others in which, over the same period, total employment increased.

Whilst agriculture is the main sector that was a net loser of manpower, in some countries employment in other sectors decreased as well. These are indicated below.

United Kingdom : 1937 to 1954 and 1937 to 1950: Mining and trade, which released respectively 12 per cent and 84 per cent of the total between 1937 and 1950, and 11 per cent and 64 per cent between 1937 and 1954. 1950 to 1954: Transport and communications, 40 per cent. **Belgium :** Mining, manufacturing, electricity, etc., transport and communications, which released respectively 10 per cent, 36 per cent, 3 per cent and 22 per cent of the total. **Luxembourg :** Mining. **Norway :** 1938 to 1955 and 1938 to 1950: mining, etc. **France :** Transport and communications. **Finland :** Manufacturing. **Italy :** Trade and other services (excluding government). **Switzerland :** Mining. **Sweden :** Mining. **Portugal :** Other services.

[b] Insured occupied population only.

the other end of the scale, in countries or periods of rapid growth of the active population (as in western Germany) even large transfers made only relatively small contributions to the total increase in the manpower of the labour-attracting sectors. Most countries are in an intermediate position, and releases of labour in some sectors constituted a substantial proportion of the labour supply of the others which were expanding. This applies to Finland, Sweden and Norway, but also to Italy.

The fact that the distribution of employment does not tally with the distribution of output implies that there are wide inter-sector differences in output per head in all the individual countries; and the shifts in the distribution of population between sectors lead one to expect that output per head has changed in an uneven manner in the various groups of industries. In order to illustrate the sector differences in output per head at a given point of time, they have been expressed as percentages of over-all productivity for each country. This has been done for a post-war year for which relatively reliable census data are available.

The differences in relative output per head, even for broad groups of industries are striking (see Table 13). In most countries output per head in agriculture, whether female family helpers are included in the employment count or not, is well below the national average. Labour transfers which, as was seen, have taken place from this low-productivity sector to high-productivity sectors have therefore tended to raise over-all productivity and have also contributed to raising productivity in agriculture itself. Industry in the wider sense has generally a productivity above the average, and that is also true for the services sectors.

The inequality of net output per head—or in other words of income generated per head—in different sectors is smallest in the United Kingdom, Ireland and the Netherlands, where employment is distributed in a very similar way to output among the various industries, and is greatest in the agricultural countries listed in the lower part of the table. The inequality is fairly large, however, in some of the industrial countries such as Luxembourg or Norway.

If the industrial and service sectors are broken down into industry groups (Table 13), further disparities in income per head appear. Per capita income in the public utility sector lies everywhere well above—usually 100 per cent above—the national average. Manu-

TABLE 13

Relative output per head by sector in a year between 1948 and 1951

A. *Excluding unpaid female family helpers*
B. *Including unpaid female family helpers*

1.00 = national average

Country	Commodity output		Services		Industry [a]		Agriculture		Mining and quarrying		Manufacturing	
	A	B	A	B	A	B	A	B	A	B	A	B
United Kingdom	..	0.97	..	1.03	..	0.96	..	1.13	..	0.92	..	0.95
Belgium	0.80	0.80	1.35	1.34	0.84	0.86	0.59	0.55	0.97	1.00	0.80	0.82
Luxembourg	0.90	0.87	1.19	1.26	1.04	1.17	0.55	0.40	1.16	1.32	1.07	1.20
Western Germany	1.00	0.95	1.00	1.10	1.07	1.20	0.79	0.51	1.22 *	1.38 *	1.14	1.28
Netherlands	..	1.00	..	1.00	..	1.03	..	0.92	..	1.43	..	1.04
Norway	..	0.92	..	1.13	..	1.24	..	0.55	..	2.17	..	1.25
Austria	1.04	..	0.92	..	1.23	..	0.70	..	..	..	1.26	..
France	..	0.88	..	1.25	..	1.16	..	0.57	..	1.30	..	1.21
Denmark	0.97	0.94	1.04	1.09	1.01	1.09	0.92	0.76	..	..	1.02	1.10
Sweden	1.02	1.02	0.97	0.97	1.20	1.21	0.66	0.65	..	..	1.29	1.26
Finland	0.93	0.87	1.18	1.38	1.19	1.40	0.68	0.54	0.75 *	1.00 *	1.15	1.36
Italy	0.91	0.89	1.23	1.31	1.10	1.17	0.75	0.68	..	..	1.26	1.34
Ireland	0.93	..	1.11	..	0.93	..	0.93	..	..	..	0.93	..
Portugal	0.94	0.91	1.15	1.25	1.31	1.41	0.72	0.66	1.00	1.00	1.32	1.43
Greece	..	0.85	..	1.39	..	1.22	..	0.69	..	1.33	..	1.20
Spain	..	0.93	..	1.19	..	1.12	..	0.83	..	..	..	1.26
Turkey	..	0.76	..	2.49	..	2.61	..	0.61	..	3.25	..	2.26

Country	Electricity, gas, water		Construction		Transport and communications		Trade		Other services	
	A	B	A	B	A	B	A	B	A	B
United Kingdom	..	1.33	..	0.92	..	0.97	..	1.19	..	0.98
Belgium	2.62	2.62	0.77	0.79	0.93	0.94	1.17	1.13	1.62	1.62
Luxembourg	1.57	1.83	0.84	0.96	..	..	..	..	..	..
Western Germany	..	..	0.70	0.79	1.24	1.44	0.95	1.01	0.94	1.04
Netherlands	..	2.00	..	0.81	..	..	..	1.02	..	1.05
Norway	..	2.33	..	1.03	..	1.42	..	1.43	..	0.88
Austria	3.56	..	0.86	..	0.85	..	1.07	..	0.89	..
France	..	2.29	..	0.80	..	1.41	..	1.23	..	1.22
Denmark	2.67	2.67	0.85	0.92	1.05	1.18	1.30	1.26	0.87	0.95
Sweden	..	..	0.96	0.96	1.05	1.06	..	..	0.77	0.77
Finland	2.50	3.00	1.25	1.47	1.09	1.30	1.40	1.59	1.07	1.26
Italy	4.60	4.60	0.38	0.40	1.44	1.44	..	..	1.19	1.26
Ireland	..	..	..	..	..	..	1.24	..	1.04	..
Portugal	..	..	..	..	1.24	1.35	1.06	1.15	1.17	1.27
Greece	..	2.25	..	1.29	..	1.25	..	1.58	..	1.34
Spain	..	2.20	..	0.53	..	0.87	..	1.31	..	1.22
Turkey	..	..	..	4.37	..	2.14	..	3.37	..	2.42

Sources : Tables 10 and 11. See also Appendix B.

NOTE. — For coverage of sectors, see Tables 10 and 11. The figures express the ratio of the percentage distribution of output to the percentage distribution of employment and show the inter-sector differences in output per head relatively to the national average.

[a] Total commodity output less agriculture.

facturing industry exceeds the national average generally by a comfortable margin, and by very much in Turkey, but lies actually below it in the United Kingdom and Belgium. The same is true for mining, but with greater variation between countries. By contrast, building and construction is typically a low-productivity industry except in some agricultural countries (e.g., Finland, Greece and Turkey), where its output per head lies well above that of agriculture and of the economy as a whole. Income per head in trade in all countries is higher than the average income, and this applies also to transport in most countries, the major exceptions being again the United Kingdom and Belgium.

TABLE 14

Cumulative annual rates of increase in output per head, Pre-war to 1954 or 1955

Country	Year or period	COMMODITY OUTPUT						SERVICES OUTPUT				TOT OUTP
		Agriculture	Mining and quarrying	Manufacturing	Electricity, gas, water	Construction	Total	Transport and communications	Trade	Other services	Total services	
		Pre-war [a] = 100										
United Kingdom	1950	2.7	−0.5	1.1	3.4	−2.8	0.7	1.4	1.5	0.1	0.7	0.7
	1955	2.9	−0.2	1.5	3.5	−1.8	1.1	2.1	1.1	0.2	0.8	1.0
Belgium	1948	0.2	−0.7	−0.5	..	−0.1	−0.1	0.4	1.5 [b]	..	..	0.2
	1954	3.1	0.9	1.3	..	0.6	1.7	2.1	0.4 [b]	..	..	1.3
Luxembourg	1949	0.6	−0.3	−0.1	−0.5	−2.5	0.0	..	..	..	0.5	0.2
	1954	1.6	1.8	0.3	2.2	1.3	0.6	..	..	..	..	1.3
Western Germany	1950	0.1	——	−1.1	——	−2.3	−0.8	0.3	−0.2	1.1	0.4	−0.4
	1955	1.7	——	0.7	——	−0.9	0.9	1.8	−0.6	1.5	0.8	0.9
Norway	1950	0.9	1.0	0.6	3.1	0.1	1.5	1.9	1.5	4.0	2.3	1.8
	1955	1.2	1.4	1.2	3.1	1.4	2.2	2.2	1.6	2.6	2.0	2.1
France	1950	..	..	..	..	..	..	..	..	..	..	1.5
	1954	1.9	0.7	1.3	2.9	1.5	1.8	2.9	0.8	1.9	1.8	1.8
Denmark	1950	3.1	— 1.5 —		3.0	3.0	2.2	1.3	1.1	1.3	1.2	1.8
	1954	..	..	..	..	..	..	..	..	..	..	1.7
Finland	1950	0.5	——	3.6	——	3.2	2.0	0.4	−1.3 [b]	0.2	−0.4	1.6
	1955	..		..		..	..	..	..	..	..	2.3
Italy	1951	1.2	2.5	2.1	0.3	3.2	2.1	3.2	−0.2 [b]	−2.5 [c]	−1.2	1.3
	1955	..	——	3.2	——	4.2	3.0	..	..	..	..	2.0
Turkey	1950	−1.3	−2.5	—— 1.7 ——		−0.2	−0.7	−0.9	−0.5 [b]	0.4	−0.3	−0.4
	1954–55	−0.5	−0.7	—— 2.4 ——		0.1	0.1	1.7	−0.3 [b]	1.1	0.7	0.6
		Post-war = 100 [d]										
United Kingdom	1950 to 1955	2.2	0.4	2.5	3.9	1.2	2.5	4.0	0.4	0.6	1.2	1.7
Belgium	1948 to 1954	8.3	3.8	4.6	3.5	2.1	5.1	5.6	−1.6	..	1.3	3.4
Luxembourg	1949 to 1954	3.7	6.6	1.0	8.4	1.4	1.9	..	..	..	..	..
Western Germany	1950 to 1955	6.0	——	5.7	——	3.2	5.7	6.2	−0.6	2.1	2.1	4.0
Norway	1949 to 1955	1.9	2.5	2.8	3.2	4.6	3.9	2.8	1.7	0.6	1.6	2.8
Austria	1950 to 1955	8.0	—— 3.9 ——		3.2	3.5	4.6	3.2	1.6	2.5	2.8	4.1
Turkey	1950 to 54/55	1.7	5.1	—— 4.7 ——		0.7	2.6	9.6	0.7	3.1	4.0	3.6
Italy	1951 to 1955	..	..	..	..	7.6	6.2	..	..	..	..	4.4

Sources : See Appendix B.

[a] For the pre-war base years, see Table 1.

[b] Including banking and insurance.

[c] Employment data do not include domestic services.

[d] The annual rates of net increase of total output per head for the period 1950 to 1955 are in France: 2.9*
Denmark: 1.5*
Finland: 4.1*
Netherlands: 2.4*
Sweden : 3.7*

These large inequalities between sector incomes per head—the relatively low productivity of agriculture and building and the high productivity of electricity, gas and water and some service sectors in particular—must be borne in mind when the development of productivity over time is discussed. Relatively large increases in the low-productivity sectors may still leave their output per head below the upward-moving national average, and smaller increases of the high-productivity sectors may still keep them well ahead of the rest of the economy.

Changes in output per unit of manpower by industrial sectors vary considerably according to whether the comparison is made over the longer period from

1938 to 1950 or 1955 or over the post-war years alone (see Table 14).

The outstanding features of the post-war development are the large productivity gains of agriculture, particularly in the industrial countries, where, of course, it makes only a small contribution to total output. Gains in agricultural productivity have also been greater than the average in France and Denmark. For these countries the gap between income per head in agricultural and in other sectors has therefore been slightly narrowed.

Agricultural output per head in semi-agricultural countries has risen much less than in the countries mentioned above, and has also risen less than total output, so that the gap in sector incomes in these countries is still widening. In Turkey, the expansion of agricultural output was accompanied by a more than proportionate increase in agricultural manpower, so that labour productivity fell during the period, and the difference between income per head in agriculture and in other industries, where productivity rose, is wider than in almost any other country.

Developments in the other low-productivity industries, construction and building, have been very different. Their apparent output per head is lower, particularly in the industrial countries, than before the war, although the figures for 1954 are generally higher than those of 1948 or 1949. But even in those countries where productivity in building has risen since before the war, the rise has almost everywhere been less than the national average (Italy is a notable exception).

Net output per head in mining seems also to have lagged behind the average productivity gain. But, at least in the major producing countries, apart from the United Kingdom and Turkey, productivity in 1955 was generally above the pre-war level. Relative productivity gains have been greatest in Norway (ore mining) and Italy (development of natural gas). Shortage of mining manpower in this sector has not helped to raise productivity; but it may be argued that the delay in major, and very often slow-yielding, investment projects has put a brake on the rise of productivity during this period.

Even the progress of productivity in manufacturing industry, where it might have been expected to be particularly strong, has in many countries been smaller than that in commodity output generally and below the national average. In the United Kingdom, Finland and Turkey, however, productivity in manufacturing rose more than in the rest of the economy. Among the service industries, transport and trade show generally substantial productivity gains but do not in all countries show gains in excess of the national average. Figures for the transport sector are difficult to interpret. Cases of an apparent decline in employment may often mean no more than a transfer of certain transport activities to the manufacturing sector. It is known, for instance, that in the United Kingdom transport undertaken by firms on their own account is not included in the output of the sector " transport and communications ", but under the relevant sectors of industry. In view of the rapid expansion of road transport, a considerable part of which is on own account and has been calling for increased manpower, it is certain that not only the output, but also the employment of the sector " transport and communications " in the United Kingdom is under-stated in the tables. Although in other countries road transport on own account is supposed to be included in the transport sector, one cannot be certain that such is actually the case. According to whether road transport is more or less efficient in terms of output per head than the other branches of the sector " transport and communications ", the tables may give a wrong impression of its importance in terms of its contribution to over-all output, employment and output per head.

The gains in output per head in the services sector as a whole were somewhat smaller than the average (except in western Germany, Luxembourg, Norway and Turkey), and the partial evidence available for the later years suggests that the rate of productivity increase was less after 1950 than before. This would seem to be true not only for the trade sector, where wartime and post-war difficulties have enforced manpower economies, but also for the other service industries. The disparities between productivity changes within the services sector in the various countries are very considerable, though on the whole perhaps slightly smaller than those in the commodity sector. Since the relatively lower productivity gains in the services sector affect the group of industries whose output per head was seen to be well above the national average, it seems that there has been a certain income equalization between the services and commodity sectors.

The figures of productivity changes shown in the tables have so far been taken at their face value, and they represent what could be assembled from official records in present circumstances. But they should be regarded with considerable caution, not only because they are in many cases not easily reconcilable with other evidence of productivity changes, but also because some of the more violent changes in the figures are in themselves not very plausible. However, one might still hold that at least the direction of the actual change is generally reflected correctly.

Indices of output per head combine the estimating errors of the volume data of output and of the employment data. On the output side it is not only different methods of estimating physical output, but also the choice of base year for price weights which is likely to introduce distortions into inter-temporal and inter-country comparisons, and these tend to be greater the farther back in time the base year lies. Thus, in Germany and Norway the real output calculations rest on pre-war weights and it would not be surprising to find considerable changes in sector figures, and in the economy as a whole, if they were re-based on a post-war year. The choice of an untypical early post-war year as a base, such as 1948 for the United Kingdom, may also give results significantly different from those which would be derived from a base year at the end of the period. But no country provides estimates of real output giving both end-of-period and beginning-of-period price-weights. The relation between current price series and volume series yields, however, implied price indices of the net output of each sector of the economy. The price movements of output as a whole in different countries, and the differential price developments between sectors of the economy, are an important enough by-product of this set of national income data to be given separately in Tables 15 to 17 in the appendix to this chapter.

For the productivity estimates a greater deficiency seems to arise from the employment data. Even for a population census year it is not very easy to match the classification of output data with that of employment data. Moreover, census data do not always register the unemployed, and they do not take note of part-time or short-time employment or the seasonal nature of some activities. The ways in which unpaid family helpers are recorded differ between various countries and from one census to another. Extrapolation of employment data beyond census years, with the help of other sources referring mainly to dependent employees, is likely to introduce further errors. Finally, employment data for the period before the war cannot be tied up satisfactorily with the post-war data. Thus, the denominator of the productivity index is in many cases a doubtful quantity, and will remain so until comprehensive employment data geared to the International Standard Industrial Classification become available at more regular intervals.

However, even after making allowances for the statistical imperfections of the data, it is sufficiently plain that in most countries large differences exist in output per head in different branches of activity, and it is known that intra-sector differences are at least as wide as, if not wider than, inter-sector differences. Transfers from industries of low to high output per head would therefore help most if the tail-end of the producers of the low-output sectors would move to the upper part of the distribution of the high-productivity sectors. This may happen in a roundabout way if firms with high productivity expand more rapidly than low-productivity firms, and if entrepreneurial and labour mobility are fairly high. But entrepreneurs are more specialized than labour, and the risk of entering a new industry or switching over to new products is greater than the penalties of hanging on at the margin in the existing industry. The potential incentives of inter-sector differences in average income therefore cannot be relied upon to bring about substantial movements of factors. These will generally take place, when labour supplies are fairly constant, only if factors are forced out of their existing employment; but many of them live behind the shelter of market imperfections and in the relative security of full employment. Where manpower supplies are increasing, a differential rate of growth between sectors could produce the required shifts; but in this case the problem merges into the wider one of obtaining adequate supplies of capital, entrepreneurship and management for the expansion of sectors with high output per head.

Moreover, average output per head is not necessarily closely related to actual or expected profitability, which guides the actions of business men, or to economic efficiency, and it can hardly be taken as a valid criterion for the optimum allocation of resources. As was shown above, the services sectors tend to have a higher output per head than many commodity sectors, and it would be odd to transfer resources out of construction, where output per head is low, to the trade sector just because here gross margins and output per head are high. Even if it were a desirable goal to bring about some transfers between sectors, economic policy could not do much—with the accepted instruments of monetary and fiscal policy—to iron out differences in output per head, except by removing market imperfections and hindrances to the mobility of factors and by reducing any protection now given to the fringe of marginal producers in the low productivity sectors.

It is not easy to translate these reflections into suggestions for specific practical steps which governments can take; and even if appropriate measures could be suggested, social and political considerations, and possibly other economic reasons (e.g., balance of payments reasons), might militate against them. In countries where governments are willing to foster particular industries by supplying capital or management, or both, or by guaranteeing sales, and where new labour supplies are relatively plentiful—as in many of the agricultural countries—the building-up of the high-productivity parts of the economy may be easier; but in the more industrial countries such a discriminatory policy of direct government interference is usually confined to projects which would normally not be undertaken by private enterprise (such as atomic energy or aircraft development). Without underestimating the importance of the structural changes which have taken place in some of the European countries in the short span of sixteen or seventeen years, the contributions towards greater productivity which can be expected in future from inter-sector shifts of output seem unlikely to be so large as to alter substantially the average rate of change of productivity. In all countries—particularly in the agricultural countries—this must come from additional investment and improved capital equipment both in existing industries and, still more, in the development of new industries.

Appendix to Chapter 7

Note to Tables 15 to 17

OUTPUT AT CURRENT AND CONSTANT PRICES—IMPLIED PRICE MOVEMENTS

As the analysis of the chapter has been conducted in terms of output at constant prices, it is useful to give at least summary information about price movements of total and sector net outputs in different countries. No simple relationship exists between rates of growth of output and changes in the price level or between sector growth and sector price movements.

Table 15 gives the implied price indices for one pre-war and two post-war years, taking for all indices, whatever the base year of price weights, 1950 equal to 100. The violent movements in price levels caused by wartime disruptions of economic life come out very clearly, also the continuing disparity of changes in price levels since 1950. Table 16 illustrates the differences in the development of sector prices by expressing the implied price indices for each sector as a percentage of the price index for total net output.

It might be thought that such divergent price movements between industries as those shown in the table would greatly affect the relative shares of industries in total output when measured at constant and current prices. This occurs only to a minor extent, however, because the strong upward movement of the general price level of net output of goods and services swamps in most cases the comparatively smaller deviations of individual industries from the average. This is shown by Table 17. This table will also serve as a reference frame for part of the analysis of factor shares in Chapter 8, which is related to incomes generated at current prices.

TABLE 15

Implied price indices for net output by sectors, 1938,[a] 1949 and 1955[b]

1950 = 100

Country	Agriculture			Mining and quarrying			Manufacturing			Electricity, gas, water			Construction			TOTAL COMMODITY OUTPUT		
	1938	1949	1955	1938	1949	1955	1938	1949	1955	1938	1949	1955	1938	1949	1955	1938	1949	1955
Belgium	..	111	109	..	103	108	..	111	109	..	99	169	..	117	124	..	110	113
Luxembourg . . .	..	105	115	..	107	87	..	118	163	..	87	88	..	101	118	..	111	140
Italy	1.8	..	104	2.1	..	122	1.9	..	101	3.6	..	110	1.7	..	128	1.9	..	105
Western Germany .	56	97	121	47 *	98 *	151 *	57	104	105	94 *	99 *	139 *	54	107	125	57	102	113
Denmark	39	99	110	33	100	119	38	92	118	93	107	90	44	93	128	40	95	115
United Kingdom .	..	102	105	..	100	134	..	98	121	..	97	120	..	98	135	..	98	121
Norway	34	104	133	31	93	141	44	102	130	69	96	113	45	95	111	41	101	127
Turkey	19	104	133	25	85	121	28	97	174	47	94	119	29	130	220	21	104	145
France	5.4	..	125	4.8	..	128	5.3	..	137	7.9	..	137	7.7	..	149	5.5	..	134
Austria	..	91	154	..	..[e]	..[e]	..	90[f]	146[f]	..	93	149	..	92	147	..	91	148
Finland	8.7	83	160	..[e]	..[e]	..[e]	8.3[d f]	85[d f]	127[d f]	..[e]	..[e]	..[e]	7.4	82	152	8.2	84	142
Greece	..	86	162	..	99	167	..	87	148	..	106	187	..	86	146	..	87	157

Country	Transport and communications			Trade			Other services			TOTAL SERVICES			TOTAL PRODUCT[g]		
	1938	1949	1955	1938	1949	1955	1938	1949	1955	1938	1949	1955	1938	1949	1955
Belgium	..	87	105	..	98	111	..	99	119	..	97	115	..	104	114
Luxembourg . . .	..	..	..	..	..	..	..	..	..	..	93	104	..	104	125
Italy	2.3	..	119	2.0[c]	..	113	2.9	..	150	2.4	..	134	2.1	..	114
Western Germany .	73	104	120	57	105	107	80	98	128	72	100	121	62	101	117
Denmark	55	91	120	48	90	107	57	96	126	53	93	118	46	94	116
United Kingdom .	..	98	118	..	95	119	..	94	131	..	95	125	..	97	123
Norway	54	90	127	55	97	124	64	95	147	58	94	134	48	98	130
Turkey	29	102	125	21	104	172	29	99	133	27	101	142	23	103	144
France	6.9	..	136	5.2	..	136	6.6	..	150	6.2	..	143	5.8	..	138
Austria	..	93	149	..	89	145	..	90	145	..	91	146	..	91	147
Finland	9.5	86	144	8.5[c]	84[c]	129	13.2	74	174	10.4	81	148	8.7	83	144
Greece	..	94	163	..	82	155	..	78	203	..	81	181	..	85	166

Sources : See Appendix B.

NOTE. — Countries are classified according to the degree of price increase sinc 1949.

[a] For western Germany, 1936.

[b] For Belgium, Denmark and France, 1954.

[c] Including banking and insurance.

[d] Including electricity, gas and water.

[e] Included under manufacturing.

[f] Including mining and quarrying.

[g] Gross domestic product, except for the countries noted in Table 1.

TABLE 16

Implied price indices for net output by sectors as a percentage of the price index for total net output in 1938[a] and 1955[b]

Country	Agriculture		Mining and quarrying		Manufacturing		Electricity, gas, water		Construction		TOTAL COMMODITY OUTPUT		Transport and communications		Trade		Other services		TOTAL SERVICES	
	1938	1955	1938	1955	1938	1955	1938	1955	1938	1955	1938	1955	1938	1955	1938	1955	1938	1955	1938	1955
Belgium	..	96	..	95	..	96	..	148	..	109	..	99	..	92	..	97	..	104	..	101
Luxembourg	..	92	..	70	..	130	..	70	..	94	..	140	..	..	..	..	..	..	..	83
Italy	88	91	100	107	92	89	172	96	80	112	92	92	111	105	96[c]	99	137	132	117	117
Western Germany	89	104	75*	130*	91	90	150*	119*	86	107	92	97	117	103	91	92	128	110	115	104
Denmark	85	94	73	102	84	101	203	77	96	110	88	99	120	103	105	92	125	108	116	101
United Kingdom	..	85	..	109	..	98	..	98	..	110	..	99	..	96	..	97	..	106	..	102
Norway	70	103	65	109	91	100	143	87	93	86	84	98	112	98	114	96	133	113	121	103
Turkey	84	93	111	84	122	121	203	83	128	153	92	101	128	87	90	120	127	93	117	98
France	93	90	83	93	91	100	136	99	133	108	95	97	119	99	90	98	114	109	107	104
Austria	..	104	..	..[e]	..	99[f]	..	101	..	100	..	100	..	101	..	98	..	98	..	99
Finland	100	110	..[e]	..[e]	95[d][f]	88[d][f]	..[e]	..[e]	85	106	94	99	109	100	98[c]	90[c]	152	121	120	103
Greece	..	98	..	100	..	89	..	113	..	88	..	95	..	98	..	93	..	123	..	109

Sources : See Appendix B.

[a] Western Germany, 1936.

[b] Belgium, Denmark and France, 1954.

[c] Including banking and insurance.

[d] Including electricity, gas and water.

[e] Included under manufacturing.

Including mining and quarrying.

TABLE 17

Percentage distribution of total net output in 1954 at current and constant prices [a]

A. *At current prices*
B. *At constant prices*

Country	Base year for price weights	Total commodity sector		Total services sector		Agriculture		Mining and quarrying		Manufacturing		Electricity, gas, water		Construction		Transport and communications		Trade		Other services	
		A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
United Kingdom . . .	1948	54.0	54.7	46.0	45.3	4.8	5.5	3.5	3.3	37.4	37.9	2.4	2.4	5.9	5.6	7.4	7.9	12.5	13.1	26.1	24.3
Belgium	1950	51.8	52.2	48.2	47.8	7.7	8.0	4.9	5.1	30.7	32.0	3.2	2.2	5.3	4.9	5.8	6.3	11.2	11.5	31.2	30.0
Luxembourg	1954	58.2	53.0	41.8	47.0	9.6	9.9	3.3	3.8	37.1	30.2	1.0	1.3	7.2	7.8	..	..	..	..	..	..
Western Germany . .	1936	66.6	67.6	33.4	32.4	10.9	10.8	4.9*	3.7*	40.6	43.6	3.4*	2.8*	6.8	6.7	7.7	7.3	9.5	10.2	16.2	14.9
Netherlands	—	55.5	..	44.5	..	11.6	..	..	..	..	..	..	..	..	..	8.4	..	10.9	..	25.2	..
Norway	1938	58.5	58.4	41.5	41.6	14.2	13.8	1.6	1.4	31.6	30.8	2.0	2.2	9.1	10.2	10.7	12.6	13.1	13.2	17.7	15.8
Austria	1954	69.7	69.6	30.3	30.4	19.0	18.4	.. [b]	.. [b]	40.6 [c]	41.1 [c]	3.9	3.9	6.2	6.2	4.7	4.6	8.4	8.7	17.2	17.1
France	1952	57.3	58.9	42.7	41.1	16.1	17.8	2.4	2.6	30.8	31.0	1.7	1.7	6.3	5.8	7.2	7.3	12.2	12.4	23.3	21.4
Denmark	1949	56.9	57.5	43.1	42.5	19.2	20.5	0.1	0.1	28.7	28.3	1.6	2.0	7.3	6.6	9.1	8.8	14.7	16.0	19.3	17.7
Finland	1948	66.1	67.7	33.9	32.3	24.1	23.1	0.4*	0.4*	30.3	33.1	1.7*	1.9*	9.6	9.2	6.7	6.9	12.0 [d]	12.6 [d]	15.2 [e]	12.8 [e]
Italy	1954	65.6	69.4	34.4	30.6	24.2	25.2	1.2	1.1	32.0	35.3	2.5	2.5	5.7	5.3	6.5	6.3	9.1	9.1	18.8	15.2
Ireland	—	58.6	..	41.4	..	32.3	..	..	..	..	..	..	..	..	..	.. [f]	..	15.4 [g]	..	26.0	..
Portugal	—	66.9	..	33.1	..	28.7	..	0.6	..	35.7 [h]	..	1.9	..	.. [b]	..	4.6	..	8.7	..	19.8	..
Greece	1951	61.2	64.5	38.8	35.5	35.4	36.8	1.3	1.2	19.5	21.4	1.2	1.0	3.8	4.1	6.2	6.2	11.2	11.3	21.4	18.0
Turkey [i]	1948	61.4	61.5	38.6	38.5	40.8	44.5	1.4	1.6	13.4	11.2	0.5	0.6	5.3	3.6	11.6	8.1	7.4	9.6	19.6	20.8

Sources: See Appendix B.

[a] Price indices transferred to a 1950 base.

[b] Included under manufacturing.

[c] Including mining and quarrying.

[d] Including banking and insurance.

[e] Excluding banking and insurance.

[f] Included under trade.

[g] Including transport and communications.

[h] Including construction.

[i] 1954-55.

Chapter VIII

FACTOR SHARES IN INCOME

The purpose of this chapter is to present the reverse side of the pictures described in Chapter VII of changes in the industrial composition of real national product and of sector incomes per unit of manpower employed. It therefore discusses how the money value of the national product and—as far as possible—of its various industrial sectors is divided among factors of production, or (more precisely) among such broad factor groups as can be identified in national statistics.

These " statistical " factor groups are often so broad that they have little connexion with the economic concept of a factor of production. In current national income statistics the income originating in each sector and available for distribution (or—what amounts to the same thing—the gross value added by each sector) is divided into payment of wages and salaries and other forms of compensation of employees, payment of rent and interest and provision for depreciation, and, finally, profits. Direct taxes absorb a part of these profits, a part is distributed as dividends, and a part is retained as business savings.[1] The distinction between profits and labour income cannot be made for the important group of self-employed persons, who devote part of their mixed incomes to personal use and part to re-investment in the business.

The distribution of the national income among these different types of factor payments, the share of wage income [2] in the total national income, and the division of the national income between income from property and entrepreneurship and income from employment (and the relative importance of income from self-employment), have always interested economists and other social scientists. These concepts of distributive shares have often been used, though not always with full understanding of their implications, in political and social discussions. The distribution of income by factor shares is not equivalent to the distribution of total personal incomes among the factors. Those who receive income from employment (and they include company directors as well as domestic servants and manual workers) may also hold shares or receive interest on savings accounts and are often credited with imputed rent for the dwellings which they own. Similarly, the operating surpluses of corporate enterprises may be augmented by non-trading income. Even if the effect of income transfers resulting from social policies, etc., is ignored, the analysis of factor shares must still not be used to draw unwarranted conclusions about the economic status and the welfare of this or that type of income receiver, simply because many economic agents combine several factor functions.

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[1] In so far as rent, dividends and interest are paid from one enterprise to another, they form part of the other's income and are reflected in its final income for distribution. All such inter-enterprise payments disappear from the final presentation of the national accounts, so that there are left only the receipts of property income by households (including non-profit-making organizations) and by the government sector.

[2] The terms " wage income ", " labour income ", " income from employment ", " wages ", etc., are used interchangeably throughout this chapter, and, unless the context clearly indicates otherwise, refer to the total remuneration of employed persons, including payment in kind and employers' contributions to social security schemes—that is to say, in the sense in which income from employment is usually employed in national accounts.

1. Changes in Factor Shares since before the War

The average relationship between income gained from employment and the total of all forms of factor income is a function of the social and industrial structure of a country. If the share of labour income in the total net output of a given sector were the same in all countries, the average for all sectors would nevertheless differ from one country to another because of the varying relative importance of a particular sector within each country. Thus, one would expect that the ratio of labour income to total income would be lower in a primarily agricultural country than in an industrial country, simply because income generated in the form of payments to employed labour is a much lower share of the total income generated in agriculture than it is in industry. At the other extreme, the total product of the government sector is by convention (and with the exception of a small amount of imputed rent) exclusively composed of wages and salaries.

Similarly, within any country, part of the change over the years in the average relationship of labour income to total factor income may be explained by a change in the industrial structure; it is these changes which will be examined in a later section of this chapter. Ideally, it would be desirable to have a finer break-down of the factor labour into unskilled and skilled manual labour, clerical, professional and managerial labour, and to have a large number of sectors for which these income fractions were known. It would then be possible to distinguish those types of income and those sectors which, by their fluctuations and importance, have been mainly responsible for the movement of the average ratio of wages to total income, and to analyse how far the movement was " explained " merely by shifts in the industrial structure, such as have been described in Chapter VII, and how far by other causes. In practice, however, few countries (Denmark, France, western Germany, Norway, Finland and the United Kingdom, and to some extent the Netherlands and Ireland) give any break-down of factor shares in income by sectors of the economy, and such detail is usually limited to a number of broad sectors which may conceal within themselves significant variations. In only two or three of these countries can comparison with pre-war be made. A classification of income from employment by type of earner is equally impossible for the economy as a whole.

An alternative to an examination of factor shares in income within sectors would be to divide the economy by type of business organization. Thus, by removing factor payments by governments and the self-employed the distribution of income created by the corporate sector, or the income of the private non-agricultural or the " ordinary business " sector, could be examined—as has been done for the United States.[3] But such refinements are scarcely possible for European countries since, even if the profits of companies or the business earnings of the self-employed are given, the proportion of the national wage bill and of other incomes to be attributed to those segments is not known. An approach along these lines is nevertheless attempted.

It is proposed, therefore, to begin by considering the share of labour income in the national income with a view to seeing if there is a pattern of behaviour common to all countries or to groups of countries and whether explanations of that behaviour can be found. Wherever the data permit, the movement of other types of income will be examined at the same time. The subsequent examination, for the few countries for which that is possible, of the behaviour of the shares of labour income in different sectors will then help to throw light on some of the causes of change in the over-all proportions and to verify the tentative conclusions reached in the first part of the analysis.

Income from Employment

For a number of countries, income from employment as a percentage of total national income is shown in Table 1. Bearing in mind the structure of the different countries, and more particularly the degree to which industry or agriculture is predominant and the extent of self-employment outside agriculture, there is little cause for surprise at finding that the share of wages is lowest in Italy and Ireland, where agriculture is relatively more important, and highest in the United Kingdom, western Germany and Sweden, which are predominantly industrial countries.

The immediately striking aspect of the table is, however, that the share of wages in all post-war years is everywhere (except in Ireland) higher than in 1938. It is very much higher in Finland, Luxembourg, and Switzerland (more than 20 per cent for the average of the post-war years), while the Netherlands, Norway and western Germany show the smallest increase (less than 10 per cent). At the extreme end of the scale stands Ireland, where the pre-war ratio has only recently been restored. If one looks at the movement of the ratio after 1948, the majority of countries show no clearly discernible trend for labour income to become either an increasing or a decreasing share of the national income; in most cases, the wage fraction varies by two or three percentage points over the years, with perhaps some tendency for it to reach its lowest point in 1950 or 1951. In France and Sweden, however, there has been a marked increase in the wage fraction, which tapers off in later years, and in Denmark there has been a rising trend since 1950.

The Share of Corporate Profits

If labour income constitutes a greater share of the national income than before the war, it is a matter of simple arithmetic that something else must account for a smaller share—either income from self-employment, profits, rent or interest.[4] This does not mean that one kind of income has tended to be transformed

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[3] Cf., G. Garvy and E. F. Denison and their contributions in *The American Economic Review*, May 1954, E. F. Denison in *Survey of Current Business*, June 1952, and J. Burkhead, in *Journal of the American Statistical Association*, June 1953.

[4] Government trading and property income should formally also be mentioned, but it normally accounts only for one or two per cent of national income. Its coverage varies appreciably between countries according to the financial and institutional arrangements obtaining for state and public enterprises and depending also on whether or not they are treated as state monopolies.

TABLE 1

Share of wages and salaries in national income

Percentages

Country	1938	1948	1949	1950	1951	1952	1953	1954	1955
Austria	..	58.5	57.1	56.1	56.7	58.3	59.7	58.1	58.1
Belgium	45.7	52.7	54.6	53.2	53.3	54.8	54.0	53.6	53.9
Denmark	..	54.1	52.9	51.6	52.7	53.4	53.5	55.8	55.9
Finland	50.4	59.1	61.8	61.7	59.1	62.3	62.2	61.6	61.2
France	52.0	..	56.0	55.0	57.7	58.3	58.9	59.5	59.1
Western Germany [b]	55.4 [c]	..	..	60.8	58.6	60.3	62.6	62.4	63.6
Ireland	51.6 [d]	48.8	49.0	52.3	53.3	50.5	49.7	51.1	51.6
Italy	40–42	..	..	..	..	..	..	48–50	..
Luxembourg	45.3	..	58.4	60.4	52.2	52.4	61.2	59.9	57.7
Netherlands	50.7	55.5	53.3	53.3	54.4	53.5	52.8	54.1	53.6
Norway	50.2	53.6	54.7	54.3	50.2	53.3	56.5	55.4	55.4
Sweden [e]	52.0	60.6	59.8	59.3	57.2	61.3	63.0	62.7	..
Switzerland [b]	49.2	59.1	60.0	59.1	59.7	60.0	59.6	58.5	58.9
United Kingdom	62.7	71.3	71.5	71.6	73.0	72.2	71.5	71.1	73.2

Sources and methods : See Appendix B.

NOTE. — Wages and salaries include employers' contributions, income in kind, and all other items treated in national accounts as income from employment. In principle, stock appreciation is excluded from national income in Belgium, Denmark, France, Ireland, Luxembourg, the Netherlands, Norway, Sweden, Switzerland and the United Kingdom.

[b] Share of net domestic product.

[c] 1936.

[d] Stock appreciation has been assumed to be zero.

[e] Share of gross national product.

into another, but simply that one or more of these four remaining kinds of income have become relatively less important in the flows of the economic system. The course of profits is particularly relevant in this connexion. If the gain of wages has not been at the expense of profits, both will show a more or less corresponding rise in their share of total income since before the war, and it is the remaining types of income that will show a fall. Such a simple investigation of the question whether profits have or have not lost what wages and salaries have gained in the distribution of the national cake is unfortunately impossible for a number of reasons. First, national accounts data on the income side are usually presented in the form of income received by households, without distinguishing between interest, rent and dividends as components of property income, so that a figure for corporate profits before distribution cannot be derived. Secondly, suitable pre-war data are often not available and, thirdly, the influence of stock appreciation is not negligible.

The capital gain or loss due to the valuation of stocks (as distinct from the physical change in their volume) should not enter the calculation of current trading profits and should not appear in the national income. The difficulty, however, of ascertaining that part of the total value of the change in stocks that is due exclusively to a change in the price at which the total of stocks is valued at the beginning and at the end of the year is such that national accounts generally can—at best—make only a global estimate for the whole economy and cannot make the distinction by sectors. Even then, some uncertainty remains about the accuracy of estimates of stock appreciation. Stock changes are notoriously the weakest part of national income estimates and the element of appreciation is, as a rule, even more nebulous. It is stated that in Luxembourg, the Netherlands, France, Norway, Sweden and Denmark, stock appreciation is, in principle, excluded from all relevant items of income, and estimates are published for the United Kingdom which permit the derivation of data free of this extraneous element; the degree to which stock appreciation is effectively excluded from the Belgian and Swiss figures is open to perhaps greater uncertainty, and in other countries it must be supposed that no adjustment (or only a global adjustment, as in Ireland) is made.

The method of evaluating stock changes will obviously affect the percentage shares in total national income not only of income from capital, but also of labour and other types of income.[5] But it will have a particularly marked effect on corporate profits—and even more on corporate savings—since the absolute value involved has to be deducted not only from the denominator (national income), but

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[5] There is another kind of "capital gain" that may also—though no doubt less seriously—lead to an over-estimate of true net profits, the provisions allowed for fixed capital consumption. If such provisions are allowed for on an historical rather than on a replacement cost basis, apparent profits are correspondingly inflated, and likewise the net national product.

TABLE 2

Share of wages and corporate profits in national income or net domestic product

Percentages

	1938	1948–55	1948–55 (*1938 = 100*)
United Kingdom [a] (*net domestic product*)			
Profits:			
Before eliminating stock appreciation	11.5	15.5	135
After eliminating stock appreciation	12.7	14.2	112
Wages:			
Before eliminating stock appreciation	66.5	71.4	107
After eliminating stock appreciation	65.3	73.1	112
France (*national income*)			
Profits:			
Before eliminating stock appreciation	..	9.6	..
After eliminating stock appreciation	7.3	8.3	114
Wages:			
Before eliminating stock appreciation	..	56.7	..
After eliminating stock appreciation	52.0	57.8	112
Ireland (*net domestic product*)			
Profits:			
Before eliminating stock appreciation	7.9	9.8	124
After eliminating stock appreciation	7.9 [b]	9.1	115
Wages:			
Before eliminating stock appreciation	52.8	51.2	97
After eliminating stock appreciation	52.8 [b]	52.0	98
Finland (*national income*)			
Profits	9.3	9.4	101
Wages	50.4	61.1	112
Switzerland (*net domestic product*)			
Profits [c]	8.0	7.9	99
Wages	49.2	59.3	121

Sources and methods : See Appendix B.

[a] Profits are given before deduction of interest paid by corporations.

[b] Stock appreciation has been assumed to be zero.

[c] Excluding the surpluses of co-operative societies.

also from the numerator of the fraction (corporate profits or savings). In periods of changing prices the effects of stock appreciation on profits will remain significant even when profits are averaged over seven or eight years (though, of course, less marked than in the two or three years 1950-52 when stock appreciation was of particular importance), while the averaging process reduces the effects on labour income to small dimensions over the period as a whole.

Table 2 puts together available information on pre- and post-war profits for five countries, for three of which the effect of excluding stock appreciation is clearly illustrated.

The total profits shown represent the operating surpluses of corporations—after providing from their net domestic product for payments of wages, rent and interest—plus net remittances of profits from abroad (except for Ireland, the United Kingdom and Switzerland). They are therefore not necessarily the same as the total income of corporations, since that concept normally includes non-trading income received in the form of transfers. Though it is a company's total income which determines its distribution of dividends and its saving, it is more appropriate in the present context to consider strictly the contribution of corporate profits to the national product, since this discussion is concerned only with the earned incomes of salary and wage-earners and not with the various transfers that they receive. Further, it is, for the moment, profits in relation to the total national income that are being considered, and not the question (which is taken up later in this chapter) whether they have done more or less well than wages within the corporate sector.

If the five countries are at all representative, there is no evidence that profits now form a lower share

TABLE 3

Share of income of unincorporated enterprises in national income (distinguishing income from agriculture, forestry and fishing)

Percentages

	1938	1948	1949	1950	1951	1952	1953	1954	1955
Belgium: [a]									
Total	33.0	36.8	34.0	33.8	32.0	30.9	31.3	30.7	30.4
Agriculture	10.5	8.6	7.7	7.0	6.8	6.3	6.6	6.1	5.9
Other	22.5	28.2	26.3	26.8	25.2	24.6	24.7	24.6	24.5
Denmark:									
Total [b]	..	35.2	36.0	37.7	36.7	35.4	..	..	..
Agriculture	..	9.6	11.5	12.7	12.4	14.0	..	..	..
Other [b]	..	25.7	24.5	25.0	24.3	21.4	..	..	..
Finland:									
Total	25.8	28.9	25.4	24.6	25.3	24.3	24.5	24.4	24.3
Agriculture	..	..	..	11.9	10.0	10.3	10.7	9.4	9.2
Other	..	..	..	12.7	15.3	14.0	13.8	15.0	15.1
France:									
Total	33.6	..	36.8	36.7	34.5	33.7	32.4	31.4	30.8
Agriculture	14.4	..	16.1	14.8	14.3	12.8	13.2	12.7	11.9
Other	19.2	..	20.7	21.9	20.2	20.9	19.2	18.7	18.9
Ireland:									
Agriculture	19.4	27.6	28.4	27.5	28.2	29.1	29.3	27.2	28.8
Luxembourg:									
Total	36.6	..	29.0	29.9	24.4	23.9	28.9	27.9	26.6
Agriculture	..	..	11.0	11.1	9.3	8.7	9.8	9.0	8.7
Other	..	..	18.0	18.8	15.1	15.2	19.1	18.9	17.9
Norway:									
Agriculture	9.5	10.9	11.4	10.3	10.3	10.6	9.8	10.6	9.8
Sweden:									
Total [c]	13.6	14.4	14.7	15.0	14.4	14.2	13.9	13.4	..
Switzerland: [d]									
Total	21.8	21.6	20.6	21.1	20.7	19.7	19.8	20.3	19.9
Agriculture	7.0	7.3	6.4	7.1	6.9	6.1	6.0	6.6	6.2
Other	14.8	14.3	14.2	14.0	13.8	13.6	13.8	13.7	13.7
United Kingdom: [e]									
Total (A)	12.9	11.9	11.9	11.2	10.1	10.5	10.2	10.0	9.7
Total (B)	12.9	12.2	12.2	11.5	10.5	10.7	10.6	10.3	10.0
Agriculture (B)	1.3	2.9	3.1	2.9	2.9	2.9	2.8	2.4	2.3
Other (B)	11.6	9.3	9.1	8.6	7.6	7.8	7.8	7.9	7.7

Sources and methods: See Appendix B.

NOTE. — In principle, stock appreciation is excluded from national income and from the income of unincorporated enterprises in Belgium, Denmark, France, Ireland (except in 1938), Luxembourg, the Netherlands, Norway, Sweden, Switzerland and the United Kingdom. Stock appreciation in agriculture has been assumed to be zero.

[a] The income of unincorporated societies (Sociétés de personnes) is after tax.

[b] Includes interest and non-dwelling rent paid to households.

[c] Share of gross national product. The percentages under-estimate the share to the extent that part of the regular residual should be attributed to this sector. For further details, see Appendix B.

[d] Share of net domestic product.

[e] A = share of national income: B = share of gross national product. The income is given before deduction of interest payments.

of national income than before the war. But this is all that the countries have in common. Profits might be slightly lower in Finland, if stock appreciation were eliminated from the figures, while the Swiss average conceals a rising trend (see Table 6). In the United Kingdom and France the shares of wages and of profits (net of stock appreciation) have risen in about the same proportion, while in Ireland profits seem to have done rather better. In Finland and Switzerland the development of labour income has clearly been more favourable (always in the particular sense of the ratio to national income) than that of profits. This diversity of experience makes it impossible to generalize.

Income from Self-employment

Wages and profits are not the only income related directly to the production process. In all countries there is a further, and often important, share of the national income earned by the self-employed. Such earnings represent in part a remuneration for their own services and in part the return for their entrepreneurial skill and their capital invested in the business. (Any division of their earnings into these different elements would, of course, be fairly arbitrary.) Some of the increased share of labour income in the total could therefore be due simply to a decline in the importance of self-employment in the economy, itself possibly due to a relative decline in an important sector where self-employment is large, such as agriculture, leading some of those formerly working on their own account to take up dependent employment. On the other hand, a shift in one or more sectors of the economy away from the individual trader to the corporate form of organization, such as might take place in retail trade for example, would have a less certain effect. There would be some addition to labour income as formerly independent traders became paid employees of companies, but part of the former trading surplus of the individual entrepreneur would become a company profit.

There are no direct means of establishing from national accounts data whether the corporate sector has in fact grown faster than the unincorporated sector, in terms of their respective contributions to the national product, and the matter can be judged only from data on the occupied labour force in a pre-war and a post-war year.

There has indeed been a decline since before the war in the relative numbers of self-employed persons in most countries,[5a] explainable partly, and most clearly in Ireland, by the fall in the total numbers engaged in agriculture. If per capita income of the self-employed had changed proportionately to average income, the fall in their numbers would tend to lower the share of income from self-employment in the total. In point of fact, however, Table 3 reveals only relatively small changes from the pre-war position (except in Luxembourg and the United Kingdom), particularly if the years 1948 and 1949 are treated as untypical in the sense that they belong to the end of the period of reconstruction. On the other hand, in some of the countries for which comparisons can be made, notably Belgium and, in recent years, France, farmers' incomes are lower as a share of the total than before the war. Outside agriculture, movements in incomes of the self-employed show no dominant tendency in the comparison between pre-war and post-war, but since the war, they have shown a fairly widespread declining trend.

Mention was made of the decline in numbers engaged in agriculture in most countries, and it is instructive to examine, from the limited evidence available in Table 3, what happened to agricultural incomes in particular—since this is the sector with the largest amount of self-employment. In spite of the relative decline in their numbers, farmers in several countries at least maintained or even improved their share in total income, reflecting some increase in income per head. This is most noticeable in Ireland and in the United Kingdom, where the agricultural sector has expanded since pre-war. More generally, it reflects also the more favourable prices of agricultural products ruling in world markets in the earlier post-war period and the higher relative prices that farmers in any case enjoyed as a result of policies of agricultural protection. Moreover, labour incomes have constituted a lower share of the total product of agriculture than before the war—partly, no doubt, because of greater mechanization, and partly perhaps because of a shift in agricultural production.

The relative position of the self-employed, showing at best a constant share in national income, has, of course, worsened compared with labour incomes, which have increased their share since before the war, as also have profits in some countries.

The Share of Rent and Interest

It is rent and interest payments, above all, that have suffered a relative decline. Table 4, which assembles the available data on income from property and entrepreneurship, shows clearly what has happened to rent in Norway, Switzerland, France, Finland and Ireland.[6] In the United Kingdom net rent—now only two per cent of the net domestic product—accounted for more than eight per cent in 1938, while in the Netherlands the decline, at least until 1950, is even greater—from 13 per cent in 1938 to 4 or 5 per cent. In Finland the decline (in rent and interest payments taken together) is of about the same order, while in Norway it is even more drastic. In France net rent is actually negative since the war [7] (and a larger negative figure holds for the rent of dwellings only). In countries such as Sweden and Belgium, where only totals for rent, interest and dividends paid to households can be compared, most of the explanation of the change since before the war is likely to be found in the first two kinds of payment, though this is not to say that there was no decline in dividends as well.

The reason for the declining importance of rent is, of course, not far to seek. Rent control in almost all

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[5a] See Table 9.

[6] In Ireland part of the rent refers to a statutory land annuity payment of a constant amount fixed in terms of pre-war prices.

[7] Because gross rent less expenditure on repair and maintenance and other current charges does not cover provisions for depreciation.

TABLE 4. — Income from property and entrepreneurship of corporations and households

Percentage shares in national income

		1938	1948	1949	1950	1951	1952	1953	1954	1955
Austria	Direct taxes on corporations	..	5.5	7.2	2.2	2.2	3.0	3.0	2.7	2.3
	Saving of corporations	..			5.3	4.8	2.1	1.7	2.3	1.8
	Other household income from property and entrepreneurship [a]	..	36.4	35.7	36.7	35.8	36.3	35.0	36.4	37.2
Belgium	Direct taxes on corporations	1.6	1.7	1.8	1.7	2.6	2.8	2.2	2.0	1.8
	Saving of corporations	1.6	1.6	1.3	2.6	3.1	2.0	1.9	2.5	2.7
	Dividends	20.0	2.3	2.5	2.5	2.9	3.0	2.7	2.7	2.9
	Rent		4.4	5.0	5.0	4.8	5.0	6.2	6.8	6.6
	Interest		3.0	3.2	3.3	3.1	3.3	3.5	3.6	3.7
Denmark	Direct taxes on corporations	1.1	1.2	1.1	1.3	1.5	1.8	1.7	1.7	..
	Saving of corporations	..	1.6	1.8	1.6	1.6	1.6	44.7	42.4	..
	Other household income from property and entrepreneurship [a]	..	43.3	44.3	45.4	44.2	43.2			..
	Of which: rent of dwellings	..	2.3	2.4	2.0	1.9	1.8	..	..	..
Finland	Direct taxes on corporations	..	3.5	4.2	5.3	7.2	5.7	4.7	4.5	4.7
	Saving of corporations	..	2.9	2.9	2.9	2.5	2.0	2.1	2.5	2.7
	Rent and interest [b]	14.3	4.1	4.2	3.9	3.8	4.0	4.8	5.0	5.0
	Dividends	..	0.5	0.5	0.6	0.9	0.5	0.8	1.1	1.4
France	Direct taxes on corporations	0.6	..	2.5	2.8	2.9	2.7	3.1	2.8	2.7
	Saving of corporations	3.9	..	2.1	2.5	1.8	2.5	2.4	2.9	4.0
	Rent	3.4	..	−0.5	−0.3	−0.5	−0.5	−0.4	−0.3	−0.3
	Interest	7.3	..	0.9	1.1	1.0	1.1	0.8	1.0	1.0
	Dividends [b]	3.6	..	3.2	3.3	3.5	3.5	3.6	3.7	3.5
Western Germany	Saving of corporations and other enterprises [c]	..	..	..	7.8	14.3	11.1	9.2	8.3	8.8
	Rent of dwellings	3.4	..	1.9	1.8	1.5	1.5	1.5	1.5	1.5
Ireland [d]	Direct taxes on corporations	1.6	2.9	2.5	2.6	2.7	2.8	2.4	2.6	2.8
	Saving of corporations	3.2	3.4	4.0	4.6	4.3	3.1	3.4	3.9	3.5
	Rent [b]	6.3	3.4	3.2	3.2	3.0	2.7	2.4	2.5	2.3
Luxembourg	Direct taxes on corporations	18.1 [e]	..	5.2	3.6	6.0	11.3	9.1	5.6	6.9
	Saving of corporations		..	1.6	—	12.0	6.9	−5.5	0.4	2.4
	Rent, dividends and interest		..	6.7	6.9	6.0	6.0	6.7	6.6	6.6
Netherlands	Direct taxes on corporations	0.6	4.4	4.6	4.9	5.3	7.0	5.3	4.1	4.5
	Saving of corporations	3.9	2.8	2.7	4.5	41.0	39.9	42.3	42.3	42.2
	Other household income from property and entrepreneurship [a]	43.7	38.9	40.6	38.4					
Norway	Rent of dwellings	4.6	0.5	0.5	0.6	0.4	0.2	0.5	0.7	0.8
	Interest received by households	3.1	1.6	1.6	1.7	1.5	1.5	1.6	1.6	1.8
	Dividends	2.8	0.9	1.0	0.9	0.9	0.9	0.9	1.0	1.0
	Interest received by government	2.1	0.6	0.7	0.8	0.5	..	..	..	..
Sweden [f]	Saving and direct taxes of corporations [g]	22.8	15.2	15.1	17.7	20.0	15.8	13.8	14.3	..
	Rent, [g] interest and dividends	5.0	2.4	2.4	2.3	1.9	1.8	1.9	2.0	..
Switzerland [d]	Direct taxes on corporations	2.5	2.5	2.8	2.6	2.2	2.4	2.3	2.8	2.5
	Saving of corporations	2.0	2.9	2.5	2.6	3.0	3.2	3.5	3.6	3.9
	Interest [b h]	2.5	2.8	3.0	3.0	2.9	3.0	3.0	3.0	3.1
	Rent [b]	10.4	6.6	6.8	6.8	6.7	6.7	6.7	6.6	6.6
	Dividends [b i]	3.5	2.1	2.1	2.3	2.3	2.4	2.4	2.4	2.3
United Kingdom	Direct taxes on corporations [j] A	2.0	6.0	7.4	6.8	5.7	7.6	7.2	6.0	5.9
	B	1.9	6.2	7.6	7.2	6.1	7.6	7.1	6.0	6.0
	Saving of corporations [j] A	2.6	7.2	4.9	8.4	9.7	2.9	4.0	6.3	5.7
	B	3.8	4.8	3.3	4.5	5.5	3.1	4.4	6.0	4.8
	Rent, interest and dividends	22.7	11.1	10.7	10.9	10.1	10.3	10.4	10.2	10.6
	Rent [d b]	8.1	1.5	1.4	2.0	1.5	1.5	1.8	2.3	2.1

Sources and methods: See Appendix B.

NOTE. — For the exclusion of stock appreciation from the figures, see the general note to Table 1.

[a] Including income from self-employment.

[b] Received by all sectors.

[c] Including government enterprises and the re-invested savings of the self-employed.

[d] Per cent of net domestic product.

[e] Including the trading and property income of government.

[f] Per cent of gross national product. Excludes the "regular residual". See Appendix B.

[g] Including provision for depreciation.

[h] Excludes the excess of the interest on the national debt over the imputed interest on productive assets of the Federal Government.

[i] Excluding dividends paid by co-operatives.

[j] A: before the elimination of stock appreciation.
B: after the elimination of stock appreciation.

[k] Excludes imputed rent of owner-occupied trading premises.

countries has ensured that rental incomes (after allowance for higher repair and maintenance costs) have kept pace neither with the rise in prices since before the war nor with the rise in other incomes. In so far as interest is also of less importance [8] (and the data are inadequate to determine just how far this is so), the contractual amount of interest must represent a smaller burden in relation to higher post-war money incomes.

Finally, a reference may be made to income from abroad. If wages are expressed in terms of national income, a drop in the contribution of net income from abroad to the national income will clearly have the effect of raising the share of wage as against property income. In most countries, however, net income from abroad is a marginal item and changes in it will have a negligible effect; but it is of some importance in the Netherlands and the United Kingdom. In the Netherlands net profits remitted from abroad constituted about 6.5 per cent of the national income in 1938, while they have been only one to two per cent in post-war years. In the United Kingdom total net income from abroad, which was four per cent of the national income before the war, has normally been one or two per cent since.

Changes since before the War in the Business Sector

For many purposes it would be interesting to extract all non-business activities from the accounts and to consider only changes in factor shares in income within the business sector of the economy. Indeed, to dig even further, and to split business enterprises into a corporate and a non-corporate sector would be even more revealing, but this is not possible in the present state of development of national accounts in Europe. All that can be attempted by way of approximation is to eliminate as far as possible those sectors that are clearly of a very different kind.

Rent is one such sector in which the play of market forces cannot influence the relative shares of different factors, since there is virtually only one factor involved in the production of the services provided by dwellings. It would therefore be desirable to consider income shares without this special influence. For similar reasons public administration and defence, the output of which is by convention valued exclusively at cost in terms of wages and salaries (with a small addition due to an imputation for net rent of government buildings) might be excluded. The rent of dwellings and the wages of civil servants are not the only sectors exclusively consisting of either labour or property income that by their relative growth or decline can influence the general wage fraction. Certain other activities—such as those of private non-profit-making organizations and domestic service—and certain services related to public administration that may not be covered by the definition of that sector, such as public health and education, should be calculated as well.

Finally, it may not be unreasonable to treat agriculture as an economic sector different in kind from other business sectors, mainly because it accounts in all countries for the larger share of self-employed persons and labour income therefore represents an unusually low share of the total product of the sector. If all the self-employed were in agriculture the non-farm business sector would be identical with the corporate sector. As there are, however, self-employed in many other sectors, the statistical coverage of the non-farm business sector as considered here is still a hybrid of corporate and unincorporated businesses. The significance of self-employment in non-agricultural sectors is not identical in terms of income and in terms of employment.[8a] In income terms agriculture accounts for roughly one-third of total self-employment in most of the countries listed, though for more like a fifth in Belgium—at least in the post-war years—and a quarter in the United Kingdom (much less in 1938). In terms of numbers, agriculture accounts more often for between a half and two-thirds of self-employment, with Ireland at one extreme (roughly three-quarters) and the United Kingdom at the other. But the number of self-employed in the total is relatively small in the latter country and in general there is a fairly close correlation between the importance of self-employment in the economy as a whole and the degree to which agriculture accounts for a major part of self-employment.

Another good reason for treating agriculture separately is that data are available for the agricultural sector in some countries (though usually only for post-war years) which are lacking for other sectors. But there are still further reasons. One is the striking reduction in its wage fraction in most countries since before the war, compared with most other sectors. Since agriculture has everywhere a low content of wage and salary payments, any tendency for it to become less important, relatively to other sectors, would be reflected in an increase in the wage fraction for the economy as a whole and vice versa. The difficulty of properly evaluating the output of the agricultural sector (particularly when there is considerable consumption on the farms) is well known, and this is *par excellence* the sector of the individual entrepreneur and the unpaid family helper. If a wage payment

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[8] Since corporate profits in the United Kingdom as shown in Table 2 include interest payments, pure profits must have risen even more, compared with pre-war, than is there indicated. On the other hand, if company income from abroad were to be included it would work in the opposite direction.

[8a] This can be seen from a comparison of Table 3 with Table 9.

TABLE 5

Share of wages and salaries in (A) the economy as a whole; (B) the private sector; (C) the business sector

Percentages

Country		1938	1948	1949	1950	1951	1952	1953	1954	1955
Belgium	A	45.7	52.7	54.6	53.2	53.3	54.8	54.0	53.6	53.9
	B	..	49.4	50.9	51.4	49.4	50.5	49.5	49.0	49.4
	C	..	57.9	59.7	60.2	57.2	58.3	58.3	57.8	57.9
Denmark	A	..	46.9	45.5	44.4	44.9	45.4	45.4	47.0	47.0
	B	..	43.8	42.8	41.4	41.7	42.0	41.9	43.3	43.3
	C	..	48.2	48.3	46.8	47.0	48.6	48.3	49.1	49.4
Finland	A	..	54.9	55.8	55.5	52.8	56.0	55.9	55.3	55.0
	B	..	52.0	52.9	52.2	50.0	51.4	53.1	52.9	52.4
	C	..	66.7	64.9	62.0	57.7	62.4	63.5	62.4	61.8
France	A	52.0	..	56.0	55.0	57.6	58.2	58.9	59.7	59.1
	B	47.2	..	50.1	48.7	51.4	52.0	52.7	53.7	53.3
	C	55.6	..	58.4	56.0	58.9	58.4	59.7	60.5	59.6
Western Germany	A	55.4 [a]	..	..	60.8	58.6	60.3	62.6	62.4	63.6
	B	50.6 [a]	..	..	56.3	54.3	55.9	58.3	58.1	59.2
Ireland	A	52.8	50.1	50.1	53.5	54.8	51.6	50.7	52.2	52.5
	B	48.7	45.8	46.0	49.0	50.2	47.0	46.0	47.5	47.9
	C	65.2	66.1	67.1	71.7	74.7	69.9	68.4	68.1	70.5
Netherlands [b]	A	54.5	55.6	53.7	53.5	55.1	54.5	53.7	54.9	54.4
	B	50.3	50.4	49.0	48.8	50.8	50.0	49.0	50.2	49.6
	C	58.9	54.9	54.6	55.2	..	..	..	..	..
Norway	A	49.1	52.9	54.0	53.6	49.6	52.7	55.8	54.7	54.6
	B	48.1	51.4	52.4	52.1	48.0	51.0	54.0	52.8	52.6
	C	52.0	53.6	55.2	55.0	49.6	53.0	57.0	56.6	56.0
United Kingdom	A	..	66.4	66.3	67.3	67.5	65.9	65.5	65.7	67.0
	B	..	63.9	63.9	64.9	65.1	63.4	63.1	63.3	64.8
	C	..	67.1	67.0	68.5	68.4	66.4	66.2	66.4	67.9

Sources and methods : See Appendix B.

NOTE. — The data refer to national income for Belgium and France, gross domestic product for Denmark and the United Kingdom, and net domestic product for other countries. (For the exclusion of stock appreciation, see " Note " to Table 2.) The private sector is defined as all sectors other than public administration and defence. The business sector further excludes agriculture, rent of dwellings, and, where possible, other non-business activities such as domestic service. The coverage of public administration and the business sector is not the same in all countries. For further details, see Appendix B.

[a] 1936.

[b] The percentages after 1950 are not strictly comparable with those until that year.

could be imputed to family helpers[9] it is hardly conceivable that wages would account for such a low share of the total product of agriculture[9a] as the 10 to 20 per cent shown for some countries.

Table 5 summarizes the result of removing first public administration[10] and then, so far as possible, all the non-business sectors and agriculture[11] from the economy.[12]

In the five countries for which a comparison can validly be made it hardly appears that the exclusion of the public sector makes any great difference (rows A and B of Table 5); in other words, there is no evidence of a relative expansion of the public services sufficient to account for more than a small part of the increase in the wage fraction, and the explanation must be looked for elsewhere. This is not to say that there has been no relative expansion, for instance, in France and the Netherlands, but simply that it has not been sufficient to make a marked difference to the over-all proportions.

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[9] The practice varies: In Norway, family helpers are treated as proprietors, while in Finland, farmers' sons and daughters working on the farm are credited with a wage. Nowhere is it possible to evaluate the contribution of wives on the farm and distinguish it from their work in the home.

[9a] See Table 12.

[10] The public administration and defence sector is not uniformly defined among countries. In general it relates to the machinery of government in a restricted sense, but in some cases (e.g. the Netherlands and Belgium) it also includes education.

[11] For Ireland only rent and agriculture (in addition to public administration) could be excluded, and the comparison with pre-war is less satisfactory for France than it is for the Netherlands and Norway.

[12] For details regarding the sectors excluded, see Appendix B.

A different picture emerges when the non-farm business sector is considered. The share of labour income in this sector is higher (though often only slightly) than in the economy as a whole, and it would probably be still higher if the segment of self-employment could be removed so as to obtain the corporate sector only. This is illustrated by the fact that in countries where the element of self-employment in the non-farm business sector is small (the United Kingdom, and apparently in Ireland and Finland) the share of labour income is relatively high. The labour share of this sector also seems in most countries to be a more stable fraction than the corresponding share in the private sector or in the economy as a whole, particularly where a comparison with a pre-war year can be made. In two of the four countries for which this comparison is possible the wages share in this sector rises distinctly less than the corresponding share for the economy as a whole or for the private sector, and in the Netherlands it is actually below pre-war. Only in Ireland does it rise more. During the post-war period the labour share in the non-farm business sector has been rising in Ireland and Norway and to a smaller extent in France. In Norway and Ireland this rising trend is less well reflected in the wage share for the economy as a whole (compare rows A and C of Table 5). In Finland the two series move in the opposite direction; a fairly constant share of labour in national income being associated with a falling share of labour in the non-farm business sector.

The non-farm business sector represents a variable fraction of the national income—varying according to the importance of agriculture and the non-business sectors in the economy (and the degree to which all non-business sectors can be statistically excluded). Corporate profits are clearly a greater share of the non-farm business sector than they are of national income—how much greater depending particularly on the degree of self-employment in this sector. Corporate profits can amount to as much as one-fifth or more of the product of this hybrid sector. While the share of labour income has risen less since pre-war in the economy as a whole than in the non-farm business sector, data do not permit a definite judgement on whether corporate profits rose more than did wages. Only for France and Ireland can an answer be given. In France, it is true, profits did take a slightly increased share in the non-farm business sector (about 18 per cent above the pre-war share for the average of the years 1949-1955, compared with 14 per cent above for the economy as a whole). In Ireland also profits in the non-farm business sector are a greater share in relation to pre-war and more so than in the economy as a whole, suggesting a decline in the share of income from self-employment outside agriculture. On the other hand, the course of profits in post-war years in the countries shown in Table 5 is little different for the two sectors.

2. Post-war Variations of Factor Shares in Income

In the preceding section, the discussion has been largely concentrated on the changes in income distribution by type of factor income that have taken place since 1938, and on the extent to which these are due to structural changes in the economy. It is now proposed to look more particularly at the seven or eight post-war years for which data are normally available and at the year-to-year fluctuations, or the continuing trends, that are revealed. Such fluctuations around an average wage fraction—itself generally higher than pre-war—may be the net result of larger positive and negative changes within some sectors than within others.

Income from Self-employment

The share in total income of income from self-employment in the immediate post-war years was slightly, but not radically, higher than its share in 1938. Table 3 shows, none the less, a tendency for the share of self-employment to decline steadily since 1948 in some countries, especially in Belgium, France and the United Kingdom and, at least up to 1952, in Finland. In the absence of adequate annual data on the numbers of self-employed, it is not possible to do more than guess at the reason for this development. In the one country for which annual data on numbers are available—the United Kingdom—self-employment is of little importance and shows no particular trend. Once again, however, a clue may be found in agriculture, and it is instructive to see whether the picture changes if agricultural and non-agricultural self-employment are treated separately.

It might be expected that agricultural incomes would suffer from the vicissitudes of harvests and would show greater fluctuations than the incomes of those independently occupied, for example, in distribution and professions. But of this there is, in fact, little evidence for the few countries—indeed, too few countries to be representative—that appear in the table. One important reason is probably agricultural protection and the guarantees given to farmers against loss of income. In Norway, Switzerland and the United Kingdom the year-to-year fluctuations in agricultural incomes are overshadowed by a marked downward trend in their share. In Belgium, Finland and France the decline is continuous, and it is difficult to say whether the cause is a fall in the number of farmers or some other reason. In Denmark alone there was a rising trend until 1952 (the last year for which data are available for that country) and Ireland alone shows a fluctuating ratio without a clear trend. In Norway, labour costs in agriculture have fallen from 20 per cent of net output in 1948 to 11 per cent in 1954 and 1955, and this might have been expected to result in relatively higher incomes for farmers. A possible explanation for the sharp fall in the agricultural wage fraction is the higher interest and loan payments that have to be made as a result of the increasing mechanization of agriculture which has been associated with the decline in the paid labour force; another possible reason is perhaps a change in the composition of output. Other countries where the wage share in agriculture is known to have declined, though less markedly, are Austria, Luxembourg and the Netherlands. In France, Switzerland and Belgium, on the other hand, the wage fraction has been fairly stable.

Along with the widespread post-war tendency for incomes earned from self-employment in agriculture to decline, as a share in the national total, there has been a fairly general though gradual decline in the relative importance of incomes from self-employment in other sectors of the economy. Once more, only a guess at the explanation can be advanced. There may have been a progressive tendency towards the corporate form of enterprise, though employment statistics do not support this hypothesis for the United Kingdom. It is also possible that some professional incomes have not kept pace with rising prices and with the incomes of other groups. As a smaller share for income from non-agricultural self-employment in the United Kingdom, France and Switzerland is associated with a higher share for corporate profits (cf. Table 6), this may suggest relatively greater increases in the volume of output and profit margins of companies as compared with individual entrepreneurs.

Rent and Interest Incomes

In most countries rent (or at least rent of dwellings) has either continued to play the same diminished role as in the early post-war years or has staged a slight recovery since about 1952. Denmark is an exception;[13] there the absolute value of net rent paid to households has varied only little, while national income has risen. In western Germany also rents have not kept up with the rise in other incomes.

The data in Table 4 can be supplemented for some countries not shown there by data on sector outputs, where the gross rent of dwellings can be derived as a percentage of gross domestic product, (e.g., Greece, Italy and Portugal) or, in the case of the Netherlands (up to 1950) and Denmark, net rent as a share of national income can be derived. In the Netherlands, Portugal, Norway and Switzerland rent has remained throughout the post-war period a fairly constant proportion of national income; but in Belgium, France, Finland, Greece, Italy and the United Kingdom it has either shown a steady rise (from 2.5 per cent in 1948 to 5.6 per cent in 1954 for Greece and from 0.5 to 1.7 per cent in Italy) or has begun to take on increasing importance (in Belgium, France, Finland and the United Kingdom) since about 1952. Rent control has clearly continued to be a limiting factor, and except in Greece and Italy—two countries severely hit by inflation—many European countries have been reluctant to bring about a revision of rents in line with the rise since before the war in other costs and prices.

The limited data on interest payments fail to reveal any tendency for income from this source to assume greater importance. It is no doubt too early for the effects of higher interest rates in the last year or two to be visible, and, in any case, to be properly interpreted these effects would have to be related to the total volume of indebtedness.

Fluctuations in Labour Income and Company Profits

The changed relation between total profits and the total wage and salary bill since the war has been discussed in Section 1. A study of wages and profits within the corporate sector in the post-war years should shed light on the particularly interesting question whether there has been much variation in the distribution of the income of that sector under post-war conditions—for example, any tendency for profits to rise more than wages in a period of good business conditions associated with rising prices, or any converse tendency for them to fall in a period of recession or of profit squeeze. Table 6 compares for six countries the movement of corporate profits on the one hand, and of wages in the business sector on the other, expressing both in terms of the national income or net domestic product. A precise comparison of the relative movement of wages and profits within the corporate sector proper is unfortunately not possible, since wages as shown in the table cover more than simply wage payments by corporations. The wages of civil servants and the armed forces have been excluded in all cases, except Switzerland, and the same applies to agriculture; wherever possible, other wages of the non-business sector, such as domestic servants, have also been excluded, but in no case has it been possible to exclude wages paid

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[13] One apparent exception that can be identified in Table 4 is Ireland; but this is of little significance, since, in the absence of adequate information on gross rents, repairs and depreciation, net rent has been assumed to be constant at the 1946 current value.

TABLE 6

Wages [a] and corporate profits as a share of national income

Percentages of national income or net domestic product

	1938	1948	1949	1950	1951	1952	1953	1954	1955
Denmark (*net domestic product*)									
Wages	..	32.6	32.6	32.1	33.1	33.4	..	..	..
Profits [b]	..	4.5	4.6	4.6	4.8	5.2	..	..	..
Finland (*national income*)									
Wages	..	45.4	45.7	44.4	43.7	46.2	45.8	46.1	45.7
Profits	9.4	7.9	8.6	9.7	11.8	9.4	8.5	8.9	9.5
France (*national income*)									
A. *Before elimination of stock appreciation*									
Wages	..	..	40.4	38.9	39.7	42.3	43.4	44.4	44.4
Profits	..	..	8.8	9.0	12.5	9.6	8.6	9.0	9.5
B. *After elimination of stock appreciation*									
Wages	38.1	..	41.2	39.9	42.3	43.0	43.4	44.4	44.4
Profits	7.3	..	7.1	7.9	7.6	8.1	8.6	9.0	9.5
Ireland (*net domestic product*)									
A. *Before elimination of stock appreciation*									
Wages	38.6	36.2	36.6	37.8	38.6	37.9	37.7	38.4	38.2
Profits	7.9	9.7	10.0	10.3	10.0	9.0	9.5	10.4	9.9
B. *After elimination of stock appreciation*									
Wages	38.6	36.2	36.7	39.3	40.7	38.1	37.5	38.4	38.7
Profits	7.9	9.6	9.8	8.0	6.9	8.8	9.9	10.5	9.3
Switzerland (*net domestic product*)									
Wages	49.2	59.1	60.0	59.1	59.7	60.0	59.6	58.5	58.9
Profits [b]	8.0	7.5	7.4	7.4	7.5	7.5	8.0	8.1	8.7
United Kingdom (*net domestic product*) [b, c]									
A. *Before elimination of stock appreciation*									
Wages	..	55.8	56.7	55.5	55.8	58.4	58.5	58.2	59.5
Profits	11.5	15.6	15.3	16.7	17.8	14.3	14.4	15.2	15.3
B. *After elimination of stock appreciation*									
Wages	..	57.7	57.9	59.0	59.5	58.2	58.1	58.5	60.3
Profits	12.7	13.5	13.9	13.2	14.2	14.4	14.7	14.8	14.5

Sources: See Appendix B.

NOTE. — Profits are after deduction of provisions for depreciation, but before payment of direct corporate taxes. The percentages for Denmark and Switzerland are derived from data that in principle exclude the effects of stock appreciation.

[a] Except for Switzerland, wages in public administration and agriculture, forestry and fishing are excluded throughout. In addition, other wages are excluded, as follows:

Denmark: handicrafts and domestic service. France: The figures relate to wages in all corporated and unincorporated enterprises, other than in agriculture. United Kingdom: Public health and education services, domestic service and private non-profit-making bodies.

[b] Excluding profits of public enterprises (and of co-operatives for Switzerland).

[c] Profits are before deduction of interest paid by corporations.

by unincorporated businesses.[14] None the less, even this still too broad definition of wages provides a more meaningful comparison with corporate profits than would a total including even more irrelevant wage items.

The period of greatest interest covers the years 1950 to 1953. Prior to the outbreak of the Korean war, the European economies were gradually returning to normal, as the period of shortages was being left behind and the adjustments due to devaluation were being effected. The immediate impact of the Korean boom was a general rise in prices of raw materials and consumers' goods and the onset of inflationary pressure. This gave way, in the years 1952 and 1953, to a partial recession, followed by a slow recovery in conditions of generally greater price stability. These contrasting economic conditions (though not as contrasting, of course, as pre-war booms and depressions) may therefore provide some clues to the behaviour of profits and wages in times of fluctuating activity and prices.

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[14] Further details concerning the coverage of wages are given in Appendix B.

The influence of stock appreciation on the wage share—but even more on the share of profits—in national income or product must again be emphasized. In the United Kingdom, for example, the exclusion of stock appreciation reduces the national income (including stock appreciation) by 3 per cent in 1948 and by no less than 6 per cent in 1950 and 1951, while in 1952 the course of prices was such that there is thought to have been a very slight depreciation of stocks. In France the exclusion of the change in the valuation of stocks would likewise reduce the national income by 6 per cent in 1951. It is evident from Table 6 that the removal of stock appreciation has a particularly marked effect in the United Kingdom; the apparently high profit shares of 1950 and 1951 disappear and the share of labour income—far from being lowest in those years—is, in fact, at the highest point reached in any year other than 1955. For France the abnormal profit share of 1951 is explained entirely by the rise in the value of stocks; and the elimination of this factor reveals a steady rise in the wages share from 1950 onwards. The effect of changing stock valuations is not less important in Ireland; and it may well be that the elimination of stock appreciation in some other countries, such as Finland, would bring the ratios for 1950 and 1951 closer to the level for other years.[15]

At first sight, then, it appears that in the United Kingdom profits did indeed gain at the expense of wages in 1950 and 1951, but—at least as far as can be observed in the annual data—this turns out to be far from being the case if the influence of changes in stock valuation is removed. After this adjustment, it is seen that the profits share improved slightly in 1951 and remained at about the same level in subsequent years; wages did relatively well in both 1950 and 1951, took a reduced share of total income in the period of recession, and improved once more as business conditions picked up in 1955. It therefore appears that in the United Kingdom labour incomes took a larger share of national product at the time of the Korean boom, and profits net of stock appreciation a smaller share, than at a time of recession. This somewhat surprising result is, however, subject to qualification, because the inclusion of wages earned in unincorporated enterprises may have a distorting effect. Further, the dependence on annual data is a handicap, which can hide contrasting features. It is likely that by about the middle of 1951 wages had more or less caught up with profits, but by that time difficulties in the economy were already appearing and soon were to affect profit margins. Annual averages may therefore hide much of the picture. In any case, the British experience in those years is by no means typical and is in contrast with that of Norway, as far as can be judged from the fall in the wage share in that country in 1951, and with the experience of Belgium and western Germany.

In France the ratio of profits to national income hardly reacted to the Korean boom, if stock appreciation is eliminated, but gradually expanded thereafter. The experience of France seems, therefore, to have been different from that of the United Kingdom; in France a gain for wages in 1951 was not lost subsequently, and was even strengthened in the period of stability from 1952 to 1954. Profits also show a steady expansion in relation to national income throughout the period, with the profits share growing faster than that of wages in later years. Only in 1950 was a clear gain to profits combined with a fall in the share of wages. Again, the conclusion is subject to reserve because of the inclusion of wages of the unincorporated sector.

In Ireland the distribution between wages and profits does not appear at first sight to vary greatly, but if, as is done in Table 6, a rough adjustment is made for stock appreciation, the result is similar to that for the United Kingdom, rather than to that for France. Particularly in 1951, profits are a distinctly smaller, and wages a distinctly larger, share of the total.

The uncertainty about stock appreciation in the remaining three countries of the table, and its demonstrated importance in the three considered above, make caution necessary in considering the implications of the data. It may well be that the apparent advantage to profits in Finland in 1950 and 1951 (dominated by exports of timber at favourable prices) would disappear, and possibly even be reversed, if the appropriate adjustment could be made, and this might also be the case in 1955. [16] Moreover, persistent inflation in that country has resulted in measures of restraint against both price and wage increases being in force most of the time, and the tying of wages to the index of the cost of living has ensured that they do not for long fall behind the growth of total incomes. At all events, it would not appear that changes in relative shares have been more pronounced in Finland, in circumstances of fairly continuous inflation up to 1951, than in countries where the price rise has been gradual and less severe. In Denmark there is relative stability of the shares for the five years available and likewise in Switzerland up to 1952, though since then profits appear to have done markedly better than wages. In the Swiss case, however, it must be remembered that only the total wage bill can be examined; the exclusion of agricultural wages and earnings in public administration, for example, could make some difference.

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[15] The importance of stock appreciation in the period under consideration should be a function of the relation between total stocks and national income and of the importance of raw materials in the total, since raw material prices rose most after Korea; but stock appreciation in Ireland was hardly less than in the United Kingdom.

[16] Corporate profits are in any event a residual item in the Finnish accounts.

For other countries a comparison between wages and profits is not possible and all that can be attempted is to obtain some clue from the course of labour incomes—preferably in the non-farm business sector (Table 5), but otherwise in the economy as a whole (Table 1). In the Netherlands, data for the business sector are unfortunately available only up to 1950. In this short period the wage fraction is rather stable and the apparent drop from 1948 to 1949 in the overall wage fraction is largely due to a fall—both absolutely and relatively—in the cost of public services. In Norway there are no major fluctuations except in 1951 and 1952. Since, however, the figures do not include any capital gain due to the appreciation of stocks, it is likely that profits gained at the expense of labour incomes in 1951 and 1952, when the wage fraction fell, and that their share then fell relatively—though possibly to a level still above normal—in the slacker conditions of 1953. In other words, events in Norway conformed more closely, though not exactly, to the French than to the British experience. In Belgium (Table 5) there is also no pronounced fluctuation, but the same tendency can be detected for the wage fraction to fall during the Korean prosperity, with some rise in the following two years;[17] and in western Germany this tendency is even more pronounced.

Were any general observation to be ventured from the limited data available for this mixed group of countries, it could only be that the shares of wages and profits in national income do not fluctuate greatly in relation to each other except in circumstances that can be regarded as, in many ways, exceptional—such as the eighteen months following the outbreak of the Korean war; and even in that period profits did not invariably gain the relative advantage. Wages must have lagged behind prices at that time; but, as is suggested above for the United Kingdom, it is possible that once the pressure began for wages to catch up, the conditions of " brimful " employment and prosperity in the economies of many countries were such that employers gave in without much resistance to wage demands. Subsequently, however, they had to bear the brunt of the recession, without labour costs being at first proportionately reduced. To some degree, situations of this kind must often arise, but it is only when some important jerk is given to the economy that they are significantly reflected in annual wage-profit ratios.

Corporate Saving and the Role of Financial Institutions

The income of corporate enterprise (after provision has been made for depreciation) is allocated to three main purposes—the payment of direct corporate taxes, the distribution of dividends and associated payments to shareholders, and a balance allocated to reserves, which constitutes the net saving of corporations.[18] Owing to the fact that data are usually given in the form of factor incomes received after transfer of profits to households (and abroad), and that dividends are not usually given separately, the distribution of profits can be analysed in only a few cases. Moreover, while the taxes and dividends paid generally correspond to actual disbursements, the residual item of saving may not resemble the amounts actually put into reserve by corporations, and this for more than one reason. First, the provisions for depreciation made by companies may differ from those in national accounts (however calculated), secondly, companies treat stock appreciation largely as current income, and thirdly, the trading profits of companies may be augmented by transfers of non-trading income.[19] Where such transfers constitute an important addition to trading profits they are likely to contain a large element of national debt interest (about one-third in the United Kingdom, for example) which, from the point of view of the enterprises enters into their " profits " and so into their saving. (This is particularly important for financial institutions.) But if the disposition of different factor incomes is being considered, convention requires that the saving of corporations before transfers be reduced by the amount of national debt interest received, and that the saving of government be increased correspondingly. Looked at another way, the saving of companies is partly financed by transfer income from the conventionally unproductive activity of national debt service, just as the saving of households is financed in part by social security and other transfers from the government (including some national debt interest, received particularly by non-profit-making bodies).

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[17] One important exception is Luxembourg, in so far as the post-Korean fluctuations are more violent, though still in the same direction as in the majority of countries. The marked increase in profits in relation to other incomes is due almost entirely to the country's great dependence on steel. Steel was in great demand throughout 1951 and 1952, while 1953 was a year of recession. (Stock appreciation is, in principle, excluded from the figures.)

[18] A fourth, and minor, usage is in the form of corporate grants to households and non-profit-making institutions, which must also be deducted before arriving at savings.

[19] For enterprises as a whole such transfers must be received either from households or from the government or (usually less important) from abroad (e.g., income from investments) and their volume will depend to some extent on matters of definition which provide much discussion for national accountants but which it is not necessary to go into here. Most of these transfers relate to the transactions of financial institutions and the definition of their contribution to the domestic product. For a discussion of non-trading income in relation to trading profits, see Appendix B.

TABLE 7

United Kingdom: composition of corporate net saving [a]

Percentages

	1948	1949	1950	1951	1952	1953	1954	1955
Percentage of total corporate saving								
Saving of financial institutions	12.0	16.9	13.0	11.0	27.3	15.5	11.0	20.5
Saving of public corporations	−23.1	−25.8	−19.7	−21.2	−29.2	−15.3	−10.6	−22.1
Saving of other companies	111.1	108.9	106.7	110.2	102.0	99.8	99.7	101.6
Percentage of national income								
Total corporate saving	4.8	3.3	4.5	5.5	3.1	4.4	6.0	4.8
Saving of other companies [b]	5.4	3.6	4.8	6.1	3.2	4.4	6.0	4.9
Total income of other companies [b] [c]	..	..	..	15.8	14.2	15.0	15.4	15.2

Sources: National Income and Expenditure 1956 (Tables 29, 33, 52, 55 and 59) and *Economic Survey, 1956* (Table 13).

NOTE. — All data (except total income of other companies) are after deduction of direct corporate taxes, provisions for depreciation and provisions for stock appreciation. It is assumed that financial institutions make provision neither for depreciation nor for stock appreciation.

[a] Including additions to tax and dividend reserves.

[b] I.e., other than financial institutions and public corporations.

[c] Domestic profits plus other income, less remittances and taxes paid abroad. The figures therefore include (in " other income ") a certain amount of non-trading income.

Mainly for practical reasons the data from which most of the Tables 14–25 are derived include national debt interest in the saving of corporations and the property income of households, with a corresponding global deduction at the end to obtain national income.

Although the extent to which these interest payments enter into the saving of corporations cannot be readily ascertained from available figures, it clearly depends on the volume of outstanding public debt in relation to the national income and on how much of it is held by enterprises rather than by households. Some idea of the possible contribution of these interest payments can perhaps be obtained by relating their total value to the income from property of households plus the saving of corporations (rather than to total national income, which includes income from employment and self-employment—two major items that are free of all income from financial assets).

In the United Kingdom, France and Belgium such interest payments are a substantial fraction—in the neighbourhood of 20 per cent of such property income for the latter two countries and rather more for the first. There is some evidence that in Belgium they account, on an average, for perhaps half or more of corporate saving as shown; and this must be viewed in the light of the relatively heavy interest burden of the public debt, amounting to 2.5 to 3 per cent of the national income. Since the corresponding burden of public debt in the United Kingdom is even greater—some 5 to 6 per cent—it is probable that the role of interest payments in company saving is also rather more important. For France a clearer picture can be obtained for the single year 1952; there, 35 per cent of the savings of all corporations was derived from interest on the public debt. Most of this, of course, went to financial institutions,[20] and represented about two-thirds of their savings.[21]

It would be enlightening if similar information were available for other countries, but the most that can be had is the separate saving (but not its public debt interest content) of financial institutions and other enterprises in the United Kingdom. Table 7 illustrates how the total net saving of corporations (after deduction of provision for stock appreciation) is made up of the saving of financial institutions, other companies and public corporations. It will be noted that the saving of banks and other financial institutions has constituted a proportion of total corporate saving ranging from 10 to 25 per cent; but it has been offset since 1952 by the dis-saving of public corporations, while in earlier years the deficit of the public corporations actually outweighed the contribution of banks. As a result, the percentages shown for the United Kingdom in Table 4 reflect reasonably well the size and course of company saving (excluding financial institutions), except that they under-estimate it by about 10 per cent until 1952.[22] The relation of saving by financial institutions to total corporate saving in the United Kingdom, which was 27 per cent in 1952, may be compared with a corresponding figure of 47 per cent for the same year in France.[23] The percentage is, however, unduly high in that year in the United Kingdom, on account of the low level of total profits in productive enterprises. While in France interest on the public debt accounted for 35 per cent of the savings of financial institutions, in the United Kingdom their receipts from this source may actually have exceeded their savings. Savings of financial institutions in the United Kingdom have usually been about £100 million in recent years, compared with total payments of public debt interest of £700 to £800 million, of which—to judge from general knowledge and from what has been seen in France and Belgium—banks and similar institutions must receive a large part.

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[20] The proportion depends on the definition of corporate income and saving. The *subventions d'équilibre* are added to corporate profits in the French accounts as transfer incomes (the total of these two items corresponding to profits as defined here), but in addition certain other items are treated as current transfers which could be more appropriately considered as being of a capital nature and are so considered in this study (see Appendix B). If corporate income were taken in the sense employed in the French national accounts, the figure of 35 per cent would become 22 per cent, while it would be 44 per cent if it were defined to exclude all these transfer items.

[21] In the French national accounts the saving of insurance companies includes the excess of receipts over payments relating to life insurance policies, which conventionally should be regarded as the saving of households.

The importance of public debt interest as an element of corporate income and saving in other countries is probably less than in those considered above. Except in the Netherlands—and, of late, Ireland—it represents only about one to two per cent of the national income. Moreover, its role in corporate saving depends on the institutional structure of the country. For example, in the Netherlands most of the interest on the internal debt is allocated to social insurance agencies (themselves part of the government sector), to households proper or to life insurance companies (which are treated as households), and none enters into the saving of corporations. Similarly, all Austrian, Danish and Irish interest on the internal public debt is allocated to households.[24]

The Allocation of Corporate Profits

The relative share of the components of corporate profits (i.e., dividends, savings and taxation) in total national income is shown, for the few countries for which sufficient details are available, in Table 4.

Corporate savings are a greater part of national income now than before the war in the United Kingdom and in Switzerland, where their importance is still increasing. As the share of taxes has nowhere decreased, and in many countries has increased, there has been a reduction in the proportion of profits distributed as dividends in some other countries. This can be inferred for Norway, and is explicit in the table in the case of Switzerland and the United Kingdom. In contrast with these countries stand France and the Netherlands (so far as can be judged from data for three years only in the latter country and assuming the 1950 percentage to be untypical). In France dividends have remained of undiminished importance, and a higher share of direct taxes has resulted in lower savings as compared with the composition before the war;[25] this may be true of the Netherlands also. In general, during the post-war period the share in national income of all three components has varied considerably but corporate savings have tended to fluctuate more than taxes and dividends.

For a more limited number of countries changes in the allocation of profits can be shown in a different, and in some respects more interesting, form. Table 8 gives the share of dividends, taxes and savings in total corporate net income. Net income includes, apart from trading profits (the relevant concept for factor share analysis), the non-trading income of corporations, which, of course, is also subject to tax and is a source of business saving and dividend distributions. Where, as in the United Kingdom, non-trading income is of some importance, trading profits and total company incomes may not follow quite the same course in relation to national income. Equally, the relation of taxes to company income will not be the same as that of taxes to trading profits. As much of the stock appreciation appears as part of companies' net income, and is assessed for tax purposes, taxes will tend to take a heavy slice of income—when stock appreciation has been substantial—a year after the high profits have accrued (assuming they are paid, as is normally the case, on the previous year's earnings). The effect of stock appreciation on the ratio of company taxes to national income may be slight (cf. the United Kingdom figures in Table 4) but is likely to be much greater on the allocational shares of company income. Similarly, the inclusion of stock appreciation affects company saving much more than company income, and this is brought out for France and the United Kingdom in Table 8. In so far as there is some doubt as to how far stock appreciation is really eliminated from the Belgian profit figures, it may add significance to the increase in savings shown for Belgium.

Bearing in mind the differences in definitions and concepts, the movements of the allocational shares of profits in national income (Table 4) and in corporate net income (Table 8) tend to supplement and to confirm each other. The fluctuations in saving as a proportion of corporate income are greater than those in dividends, particularly in the United Kingdom,

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[22] The pre-1952 figures may be more especially influenced by acts of nationalization.

[23] As explained in a previous footnote, the figure would be lower if the saving from life insurance were excluded from the saving of financial institutions.

[24] About one-fifth of the total debt interest in the Netherlands is paid to banks, but for practical reasons is allocated to households. More generally, the total of public debt interest may be allocated to households for statistical convenience if its distribution is not known.

[25] The 1938 figures for corporate savings are, however, subject to a greater margin of error than the post-war data.

TABLE 8

Distribution of total corporate net income in six countries

Percentages of total corporate net income

	1938	1948	1949	1950	1951	1952	1953	1954	1955
Belgium [a]									
Direct taxes	..	30	32	24	30	36	32	27	25
Dividends	..	41	44	37	33	38	40	37	39
Saving	..	29	24	39	36	26	28	35	36
Denmark [a]									
Direct taxes	..	26	24	27	31	34	..	..	..
Dividends	..	38	38	39	36	34	..	..	..
Saving	..	36	37	34	33	32	..	..	..
Finland [a b]									
Direct taxes	..	51	55	60	68	69	62	56	53
Dividends	..	8	7	7	8	6	10	13	16
Saving	..	41	38	33	24	24	28	31	31
France									
A. *After elimination of stock appreciation*									
Direct taxes	8	..	32	31	33	29	31	27	24
Dividends	33	..	39	39	44	42	42	42	38
Saving	58	..	29	30	23	29	27	31	38
B. *Before elimination of stock appreciation*									
Direct taxes	..	..	25	25	20	24	31	27	24
Dividends	..	..	32	31	26	35	42	42	38
Saving	..	..	43	44	55	40	27	31	38
Switzerland [a]									
Direct taxes	27	33	38	35	29	30	27	31	29
Dividends	52	29	28	30	31	30	30	28	27
Saving	21	38	34	35	40	40	43	41	44
United Kingdom [a c]									
A. *After elimination of stock appreciation*									
Direct taxes	12	34	44	40	34	47	42	32	34
Dividends	65	33	31	29	28	28	28	29	31
Saving	24	33	25	30	38	25	30	38	35
B. *Before elimination of stock appreciation*									
Direct taxes	13	31	40	33	28	47	43	33	32
Dividends	70	29	28	24	23	28	29	28	30
Saving	17	40	31	43	49	24	29	39	38

Sources and methods : See Appendix B.

NOTE. — Total income is in all cases after deduction of provisions for depreciation of fixed capital and, unless otherwise indicated, is net of stock appreciation.

a Excludes public enterprises (and also co-operatives in Switzerland).

b Before elimination of stock appreciation.

c Excludes public corporations. The coverage varies with acts of nationalization and denationalization.

Belgium, Switzerland and (if stock appreciation were eliminated) probably also in Finland.[26] In France dividends have been a fairly stable share, as have savings, except where the very good trading year of 1955 resulted in some increase.[27] Only in France do distributed profits appear consistently to outweigh corporate savings (though this may be largely a statistical illusion [28]). In Belgium also this was more or less true until 1953, but the relationship seems to have become more equal since then. But in these last two countries dividends account for about four-tenths of company income, while they represent three-tenths or less for the other countries in the table. The greater stability of the share of dividends than of saving in total corporate income is clear in all cases.

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[26] For Luxembourg, some variation in the share of company saving is explained by the inclusion of provisions for tax payments that accrue on one year's income but are paid in the next. This also applies in varying degrees to other countries and may account in part for the high Dutch figure of corporate taxes in 1952 and an implied correspondingly lower figure for company saving (Table 4).

[27] 1951 was also exceptional, but is influenced by stock appreciation. A different result is obtained on the basis of the original French figures, which include other transfers in income.

The Burden of Corporate Taxation

The growth of taxation since before the war has had its repercussions not only on personal income, whether " earned " or " unearned ", but also on the profits of corporations in the majority of countries. This can be seen from Tables 4 and 8, and is most apparent in the United Kingdom, the Netherlands and France.[29] Switzerland seems, in fact, to be the only country, among those for which pre-war data are available, where the importance of direct taxes on corporations has not increased in relation to national income (though in Belgium the increase is small and the tax burden in Denmark was not high in the early post-war years). In Switzerland government expenditure may not be such a greatly increased proportion of national expenditure, and any increases in general government outlays may be financed by other means than direct taxation of company profits.

If direct taxes on companies are now an essential feature of general taxation, they are, like other taxes, subject to variation not only with respect to the current financial needs of the government but also with respect to general economic policy. Thus they are a weapon with which governments may attempt to influence the accumulation of company savings, as against the distribution of higher dividends, by applying a favourable discriminatory rate of tax to undistributed profits. Or, by varying tax exemptions, the government may, according to changing economic circumstances, seek to encourage or discourage productive investment by enterprises. Similarly, a government may decide, as a matter of economic or social philosophy, that at a time of particularly heavy pressure on resources (such as the acceleration of defence programmes in 1950) corporate profits should be called upon to contribute their share, or more than their share, to the general increase in taxation. But at any time the attitude to taxes on business will have to take account of the possible effects of different policies on business enterprise and on the employment of business savings to finance investment.

Since it was found that corporate profits have generally been a fairly steady or gradually rising share of national income since 1948, it would not be surprising, in the light of the above considerations, to find also that direct corporate taxes have been a varying ratio. But in the United Kingdom, France and Ireland variations did occur but they became smaller after 1952. The high ratio of profits tax payments to profits earned in 1952 reflects tax payments at a higher rate in respect of profits actually earned in the boom year of 1951 (especially since the gain from stock appreciation is also taxed); and, as in 1949, it may also reflect the attempt to limit the distribution of dividends in a general effort to promote income stability. Equally, a somewhat lower yield than usual in 1954 and 1955 may be associated with tax concessions granted at a time when the stimulation of investment and of consumer purchasing power was considered desirable.

Somewhat the same story can be made out for the Netherlands, but the tax burden on the profits earned after Korea was rather higher, as can be seen from the percentage for 1952. In France the revenue from direct corporate taxes has not kept up with the relative growth of corporate profits since 1952; but in Belgium the share of corporate taxes in national income, after rising in 1950 to 1952, has since tended to decline, while that of business saving rose. In Switzerland corporate taxes remained a fairly constant share of national income while the share of corporate saving tended to grow.

The variations in the shares of corporate net income absorbed by taxation can be seen clearly from Table 8, which gives for France and the United Kingdom two sets of data relating to corporate income, including and excluding stock appreciation. The data tend to show, first, that the tax burden on corporate net income varies considerably between countries, being highest in Finland (in recent years over one-half), substantial in the United Kingdom and Denmark (about one-third), and between 20 and 30 per cent in all other countries; secondly, that it has increased sharply between 1938 and the early post-war years (Switzerland is an exception) but has tended to decrease since in most countries, although in an erratic manner; and thirdly, that fluctuations in the tax burden have generally been offset by corresponding variations in business savings, while dividend distributions have tended to be a fairly stable proportion of income and subject to more long-term changes in dividend policy.

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[28] Because of the different ways of defining company income, to which reference has been made in footnote 20.

[29] The burden of taxation on corporations is particularly heavy in Finland and would represent an even higher share if stock appreciation could be excluded from the profit figures. The reduction of the share taken by taxation since 1952 has lead to a rapid increase in the proportion allocated to dividends and to a more gently rising share of business savings. But even in 1955 taxes took more than half of corporate profits and the shareholders received less than one-sixth in the form of dividends —less than in any other country for which data are available.

3. CAUSES OF CHANGE IN THE SHARE OF LABOUR INCOME

Changes in factor shares are often accompanied by changes in the relative size of sectors, by changes in the composition of the labour force and by movements of income per head in different factor groups. Thus, a rise in the share of labour may be due merely to a decline in the proportion of the self-employed in the economy or in the sector under consideration, while it would be much more revealing to know how labour's share—or still better, the shares of workers and salary earners taken separately—would have moved with a constant proportion of employed to self-employed persons. Relevant information on the division of sector net products is not adequate to separate statistically these different influences on the share of labour, but some of the underlying causes can at least be illustrated.

TABLE 9

Occupied population by industrial status in census years

Percentages

Country	Year	Self-employed persons as share of total occupied in:							Share of total self-employment accounted for by:					
		Total occupied population	Agriculture	Manufacturing	Construction	Transportation	Trade	Services Public Admin.	Agriculture	Manufacturing	Construction	Transportation	Trade	Services Public Admin.
Austria	1934	35.1	58.5	25.8	19.5	7.2	50.4	15.9	55.9	18.6	1.7	1.1	12.2	10.4
	1951	26.5	66.9	14.1	6.5	5.9	35.9	11.4	60.9	16.8	2.0	1.3	10.3	8.6
Belgium	1937	..	90.6	19.8	31.1	8.2	76.1	..	..	..	..	..	..	..
	1947	28.5	84.3	15.0	26.4	10.4	63.3	17.7	33.9	20.2	5.5	2.7	26.0	11.7
	1955	26.9	92.2	14.4	20.0	11.0	—28.5—		36.5	19.7	5.2	2.6	—36.0—	
Luxembourg [a]	1935	35.7	77.1	20.1	23.5	5.9	—35.3—		47.1	16.8	4.5	1.0	—30.3—	
	1947	30.5	78.1	15.0	19.2	9.0	—28.9—		47.4	16.0	4.7	1.8	—29.8—	
Denmark [a, b]	1940	26.0	45.4	14.6	18.2	12.3	42.1	12.2	46.7	15.0	4.7	3.0	21.1	9.3
	1950	25.6	49.2	14.8	21.1	13.0	39.7	12.2	43.3	16.5	5.8	3.7	20.9	9.7
	1953	25.3	52.6	—20.3—					42.6	—57.4—				
Finland	1950	32.4	67.7	13.0	8.9	14.0	—12.1—		76.3	10.4	2.0	2.7	—8.6—	
France	1936	29.1	51.7	18.9	26.2	5.3	39.9	20.4	51.9	17.3	4.2	1.1	14.0	11.4
	1954	28.6	59.6	13.4	18.2	5.3	44.1	24.2	48.5	13.3	5.0	1.1	16.7	15.2
Western Germany	1936	28.0	68.5	16.9	16.8	5.1	—24.8—		48.1	19.5	4.0	1.1	—26.9—	
	1950	23.0	63.5	13.6	14.3	7.2	—22.8—		42.1	20.2	5.4	2.0	—29.9—	
Ireland	1936	47.6	80.9	20.9	12.6	15.8	41.5	9.0	80.6	5.6	1.3	1.1	7.0	4.5
	1951	39.8	81.5	11.8	9.4	8.8	30.4	7.0	80.3	5.1	1.7	1.1	8.7	3.4
Italy [a]	1936	42.6	65.2	24.8	11.8	24.6	—33.4—		64.0	14.1	1.6	2.5	14.4	2.8
	1951	37.2	62.2	23.8 *	9.8 *	15.0 *	—31.6*—		61.8 *	15.6 *	2.2 *	1.6 *	—18.8*—	
Norway [c, d]	1938	41.1	77.9	18.4	35.0	14.3	26.4	17.8	68.3	8.4	5.1	2.9	5.9	9.0
	1948	36.1	81.2	14.0	25.4	11.2	24.8	18.1	65.6	9.1	5.9	2.7	6.1	10.5
	1953	33.4	82.6	13.6	18.0	10.7	22.5	17.5	64.7	10.1	4.9	3.0	6.3	10.8
Switzerland	1941	28.7	73.1	16.4	15.9	6.5	34.7	14.5	52.7	20.8	3.9	0.9	10.4	11.3
	1950	24.6	75.2	13.5	15.4	5.1	29.7	13.7	48.7	20.8	5.2	1.0	12.0	12.4
Sweden	1940	28.5	67.0	13.6	17.4	11.1	27.6	8.3	64.7	13.6	4.0	2.7	9.4	5.7
	1950	22.2	69.5	9.5	12.5	9.9	23.1	4.1	62.5	13.6	4.4	3.6	12.3	3.6
United Kingdom [c]	1931	13.2	32.3	8.1	13.1	6.5	27.1	16.8	15.6	19.4	5.2	4.0	33.3	21.8
	1951	10.5	32.5	5.6	12.4	4.9	24.8	9.6	15.3	19.8	7.2	3.6	33.3	19.7

Sources: National statistics.

Note. — All family helpers are included with the self-employed, except in agriculture, where female family helpers have been excluded wherever possible.

[a] The figures refer to employed and unemployed population.

[b] Mining is included with manufacturing.

[c] Including female family helpers in agriculture.

[d] Public utilities are included with manufacturing.

Reference has been made earlier to changes in the proportion of employed and self-employed and to the fact that the shrinkage of the agricultural sector was mainly responsible for the decline in the number of self-employed. But there are other sectors (manufacturing and trade, for instance) in which self-employment is not unimportant, and where the proportion of self-employment has declined, though probably for different reasons (see Table 9). These changing proportions have been associated with different movements in income per head.

Changing Importance of the Self-employed

Table 10 shows the percentage of employed and self-employed persons and their respective shares in national income; the ratio between the two gives the percentage by which the income per head of the factor group concerned exceeds or falls short of the national income per head of the occupied labour force.

In many countries the share of labour income has risen faster than the proportion of wage and salary earners; in other words, their income per head has

TABLE 10

Distribution of national income and occupied population between wage and salary earners and self-employed persons

Country and year		WAGE AND SALARY EARNERS			TOTAL SELF-EMPLOYED								
								of which :					
								in agriculture			outside agriculture		
		Income as % of total national income (1)	Number as % of total occupied popul. (2)	$(3) = \frac{(1)}{(2)}$	Income as % of total national income (4)	Number as % of total occupied popul. (5)	$(6) = \frac{(4)}{(5)}$	Income as % of total national income (7)	Number as % of total occupied popul. (8)	$(9) = \frac{(7)}{(8)}$	Income as % of total national income (10)	Number as % of total occupied popul. (11)	$(12) = \frac{(10)}{(11}$
Belgium	1938	45.7	69.5 *	0.66 *	33.0	30.5 *	1.08 *	10.5	11.1 *	0.95 *	22.5	19.4 *	1.16 *
	1948	52.7	71.5	0.74	36.8	28.5	1.29	8.6	9.7	0.89	28.2	18.8	1.50
	1955	53.9	73.1	0.74	30.4	26.9	1.13	5.9	9.8	0.60	24.5	17.1	1.43
Luxembourg	1938	45.3	64.3	0.70	36.6	35.7	1.03	..	16.8	..	..	18.9	..
	1949	58.4	69.5	0.84	29.0	30.5	0.95	11.0	14.5	0.76	18.0	16.0	1.13
Denmark	1950	51.6	74.4	0.69	45.4	25.6	1.77	12.7	11.1	1.14	32.7	14.5	2.26
	1952	53.4	74.7	0.71	43.2	25.3	1.71	14.0	10.8	1.30	29.2	14.5	2.01
Finland	1938	50.3	..	..	25.8	..	..	..	..	..	..	..	..
	1950	61.7	67.6	0.91	25.2	32.4	0.78	11.9	24.7	0.48	13.3	7.7	1.73
France	1938	52.0	70.9	0.73	33.6	29.1	1.15	14.4	15.1	0.95	19.2	14.0	1.37
	1954	59.5	71.4	0.83	31.4	28.6	1.10	12.6	13.9	0.91	18.8	14.7	1.28
Western Germany . . .	1936	55.4	72.0	0.77	..	28.0	..	..	13.5	..	..	14.5	..
	1950	60.8	77.0	0.79	..	23.0	..	..	9.7	..	..	13.3	..
Ireland	1938	52.8	52.4	1.01	..	47.6	..	19.4	38.3	0.51	..	9.3	..
	1951	54.8	60.2	0.91	..	39.8	..	28.2	32.0	0.88	..	7.8	..
Netherlands	1938	50.7	70.1	0.72	..	29.9	..	..	..	..	..	..	..
	1948	55.5	73.8	0.75	..	26.2	..	..	10.2	..	..	16.0	..
	1950	53.3	74.3	0.72	..	25.7	..	..	10.0	..	..	15.7	..
	1953	52.8	74.9	0.70	..	25.1	..	..	9.7	..	..	15.4	..
Norway	1938	50.2	58.9	0.85	..	41.1	..	9.5	28.0	0.34	..	13.1	..
	1948	53.6	63.9	0.84	..	36.1	..	10.7	23.7	0.45	..	12.4	..
	1953	56.5	66.6	0.85	..	33.4	..	9.8	21.6	0.45	..	11.8	..
Sweden [a]	1938	52.0	71.5	0.73	..	28.5	..	..	18.4	..	..	10.1	..
	1950	58.3	77.8	0.75	..	22.2	..	..	13.9	..	..	8.3	..
Switzerland	1938	49.2	71.3	0.69	21.8	28.7	0.76	7.0	15.1	0.46	14.8	13.6	1.09
	1950	59.1	75.4	0.78	21.2	24.6	0.86	7.1	12.0	0.59	14.1	12.6	1.12
United Kingdom . . .	1938	62.7	88.0	0.71	12.9	12.0	1.08	1.3 [a]	1.9	0.68	11.6	10.1	1.15
	1951	73.0	89.5	0.82	10.1	10.5	0.96	2.9 [a]	1.6	1.81	7.2	8.9	0.81

Sources : Tables 9 and 14 to 25.

[a] Gross income as share of gross national product at factor cost.

increased more than national income per head. In France, Switzerland and the United Kingdom the share of labour income has risen significantly without much rise—if any—in the relative number of wage and salary earners. In western Germany, Norway and Sweden the relative increase in each variable has been similar, thus leaving relative incomes per head more or less unchanged.

The income per head of the self-employed is in nearly all cases above that of wage and salary earners (compare columns 3 and 6 of Table 10), only slightly higher in Switzerland but more than twice as high in Denmark. Only in Finland is the per capita income of the self-employed lower than the average income of wage and salary earners. The explanation lies in the large share of agriculture in total self-employment. Income per head of the self-employed outside agriculture is in all cases much higher than that of all self-employed and, *a fortiori*, than that of the labour force as a whole. For the countries for which data for several years are available, the share of national income accruing to the self-employed outside agriculture seems to have declined more than their share in the labour force. Their income per head has therefore risen less than the national average, while, as was seen above, the per capita income of wage and salary earners has risen more. But there are exceptions to this: in Switzerland, for instance, the income share of the self-employed has remained almost constant in spite of a fall in the proportion of self-employed in the labour force, with the result that the income per head of the self-employed has grown almost as fast as that of wage and salary earners, both groups gaining at the expense of other factor incomes. As can be seen from the third part of Table 10, this development is caused mainly by the steep rise in the relative per capita incomes of the self-employed in Swiss agriculture.

Large movements in per capita income of the self-employed in agriculture can be observed in other cases also. In all countries where, before the war, their income per head was lower than that of wage and salary earners, it has risen under the combined influence of an increase in their income share and a fall of their relative number. This is particularly so in Ireland, Norway and Switzerland. In France their income per head has declined slightly, relatively to the national average as a result of a fall both in the proportion in the number of self-employed in agriculture and a slightly greater fall in their income. Pre-war figures are not available for Denmark, where income per head of the self-employed in agriculture was already much higher than that of wage and salary earners in 1950 and continued to rise further between 1950 and 1953. In the United Kingdom, where per capita income of the self-employed in agriculture was about the same as that of wage and salary earners in 1938, their income share has risen, while their proportionate numbers have fallen; in 1951 their income per head was more than twice as much as that of wage and salary earners. As was seen earlier (in section 2), the share of the wage bill in agricultural output declined and so did the proportion of paid labour in the total agricultural labour force, and this may well be part of the explanation of the relative gain in per capita incomes of the self-employed in this sector.

Income and Employment in Manufacturing Industry

For a few countries only is it possible to show the employment and income share of labour in manufacturing industry. But, in contrast to the information available for agriculture, the data given in Table 11 suffer from two deficiencies: (*a*) the coverage of manufacturing industry varies in different countries, sometimes excluding and sometimes including mining, building and electricity, and (*b*) the share of income from self-employment cannot be inferred, as it can in the case of agriculture, where corporate enterprise is negligible. An unknown proportion of the non-labour share goes, therefore, to self-employment and the remainder to corporate profits and other small residual items.

The first part of Table 11 relates the changes in the share of wages and salaries in the net domestic product of manufacturing industries to the corresponding changes in the relative number of wage and salary earners employed in the sector. It shows that of the four countries for which pre-war data are available, two, France and Italy, experienced an increase in the wage fraction whereas it declined in the Netherlands and Norway. For the post-war period, all countries show an increase except western Germany and Ireland, where the wage share has been fairly stable, and Finland and Italy, where it has actually declined.[30] The increase in the share of wages and salaries has been greater than that in the relative number of wage and salary earners, with the exception, of course, of the Netherlands and Norway, where the wage share actually declined (see column 3 of Table 11).

The same kind of comparison, but this time in terms of national average, is shown in the last three columns of Table 11. In France the parallel increase in the shares of labour income and of employment has left unchanged the ratio of income per head of dependent labour in manufacturing to national income per person employed. In Italy, where wage earners in manufacturing (including mining, electricity and

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[30] In Italy, according to an estimate of the wage bill, the labour share in the net industrial product decreased from 60 per cent in 1948 to 53 per cent in 1955. See also Table 12.

TABLE 11

Income and employment of wage and salary earners in manufacturing industries

Percentages

Country	Year	Share in manufacturing net output or employment			Share in national income or total occupied population		
		Wages and salaries (1)	Wage and salary earners (2)	$(3)=\frac{(1)}{(2)}$	Wages and salaries in manufacturing (4)	Wage and salary earners in manufacturing (5)	$(6)=\frac{(4)}{(5)}$
Denmark [a]	1950	56.0	85.2	0.66	14.6	24.4	0.60
	1952	59.7	84.0	0.71	16.5	26.5	0.62
Finland [b]	1950	67.0	87.5	0.77	21.3	23.6	0.90
France	1938	64.7	81.1	0.80	19.0	21.6	0.88
	1954	69.9	86.5	0.81	21.4	24.5	0.87
Western Germany [b]	1950	57.9	88.0	0.66	23.5	34.7	0.68
Ireland [c]	1951	75.7	89.3	0.85	18.3	22.5	0.81
Italy [c]	1938	43.1	76.4	0.56	12.6	18.0	0.70
	1951	50.3	78.4	0.64	18.8	20.0	0.94
	1955	52.8	80.5	0.66	22.0	21.0	1.05
Netherlands	1938	64.2	..	..	14.3	..	..
	1948	56.2	84.8	0.66	17.4	25.7	0.68
	1950	57.2	86.1	0.66	18.7	27.5	0.68
Norway [d]	1938	56.0	81.6	0.69	14.7	15.3	0.96
	1948	50.1	86.0	0.58	17.2	20.2	0.85
	1953	55.2	86.4	0.64	18.4	21.4	0.86
United Kingdom	1951	66.3	94.4	0.70	26.4	35.5	0.74

Sources : See Appendix B.

[a] Mining and manufacturing.

[b] Mining, manufacturing and public utilities.

[c] Mining, manufacturing, public utilities and construction.

[d] Manufacturing and public utilities.

building) constituted about 20 per cent of the occupied labour force in 1951 as in 1938, their income share in national income almost doubled so that their average income per head, which was below the national average in 1938, rose to about its level in 1951. The opposite happened in Norway, where the average income per head of wage and salary earners in manufacturing, which was above that for all wage and salary earners in 1938, declined to the average level. There are thus divergent developments of relative income growth for wage and salary earners in manufacturing in different countries and in relation to other sectors.

To summarize: there has been a considerable switch of relative income per capita from self-employment to wages and salaries in sectors other than agriculture, only partly compensated by a shift towards the self-employed within agriculture.

It is possible that the conclusions would be somewhat changed if account could be taken of total personal available income rather than of factor income; it will be seen, however, from Table 8 of Chapter IX, where a comparison of personal income per head has been made for Denmark, Sweden and the Netherlands, that the movement over time of average income for the different classes of the occupied labour force is very similar, while, as might be expected, the average incomes in the various sectors appear to be modified.

The Effects of Inter-industry Shifts on the Wage Fraction

Changes in the average share of labour income in total income are, as has been noted, the net result of changes in the relative size of different sectors and of changes in the share of labour income within the

TABLE 12

Share of labour income in net domestic product by industrial sectors

Percentages

Country	Year	Agri-culture, forestry and fishing [a]	Mining and quarrying	Manufac-turing [b]	Gas, electricity, water	Building	Transport and communi-cation	Trade [c]	Other services [d]	All sectors [e]
Denmark [f]	1948 A	36.6	78.7	55.4	41.0	75.2	74.2	39.9	50.3	53.6
	B	33.5	68.5	48.9	29.8	72.3	51.9	32.8	43.0	46.9
	1950 A	31.2	77.5	54.8	42.9	69.7	79.7	37.8	50.6	51.0
	B	28.1	67.4	47.9	28.5	67.4	53.5	31.9	42.2	44.4
	1952 A	29.0	79.0	59.5	52.7	65.4	74.6	40.9	52.0	52.9
	B	26.0	68.8	51.2	30.0	63.4	49.5	35.4	41.4	45.4
	1954 B	28.0	65.8	50.8	30.3	64.0	52.9	37.4	40.8	47.1
Finland	1948	25.9	70.3			70.8	74.7	48.4	59.5	55.1
	1950	24.0	67.0			72.6	71.4	46.2	49.8	55.5
	1952	25.4	68.1			78.3	72.6	46.6	45.2	56.0
	1955	24.5	66.6			80.7	67.3	48.4	35.5	55.0
France	1938	17.6	..	64.7	75.0	52.9	91.3	34.1	37.3	53.4
	1950	15.9	..	63.7	71.3	53.3	89.5	29.7	52.7	56.0
	1952	16.1	..	66.2	73.7	58.3	92.8	33.2	53.9	58.7
	1954	17.0	..	69.9	75.8	64.8	91.0	35.2	54.8	60.8
Western Germany	1950	20.0	55.9			81.1	58.6	39.3	68.4	56.0
	1952	16.7	52.3			79.4	56.4	49.0	74.7	55.2
	1955	17.5	54.4			80.0	53.4	49.9	82.2	57.0
Ireland	1938	18.1	..				..		..	52.8
	1948	15.5	..				..		..	..
	1951	12.9	75.7				54.8		60.8	51.9
	1952	12.5	77.6				57.5		60.5	51.4
	1955	13.1	76.1				58.5		61.6	52.1
Netherlands . . .	1938	44.9	85.2	64.2	34.4	63.2	67.1	49.1	31.7	53.8
	1948	33.1	91.9	56.2	68.0	70.6	64.8	34.1	44.6	55.4
	1950	24.0	80.5	57.2	59.4	74.7	74.2	31.5	44.3	53.3
Norway	1938	25.7	59.3	57.2	42.4	55.2	55.2	41.8	47.4	49.1
	1948	25.5	53.4	50.3	46.7	71.5	66.1	45.1	65.1	52.9
	1950	23.4	50.6	54.2	47.3	71.7	62.8	41.2	64.5	53.6
	1952	23.4	40.2	60.2	60.7	72.8	51.4	41.4	65.2	52.7
	1955	21.7	42.1	..	54.3	76.6	58.4	47.5	60.4	55.2
United Kingdom [g]	1948	40.2	89.8	64.6	57.9	81.1	70.1	46.8	53.4	64.3
	1950	38.8	87.1	63.0	57.8	81.5	68.7	47.2	53.3	63.6
	1952	37.7	91.6	67.1	57.5	81.9	66.4	53.4	55.8	66.8
	1955	41.2	90.9	66.4	55.5	81.4	69.3	51.4	53.4	66.1

Sources: See Appendix B.

[a] For Norway, excluding whaling.

[b] Including handicrafts except in Western Germany.

[c] Including banking and insurance for Finland.

[d] Excluding public administration and defence. Denmark: Percentages of net domestic product cover professions, domestic services and rent of dwellings only. Netherlands: excluding education. United Kingdom: excluding public health and education services.

[e] Including also public administration and defence.

[f] A: shares in net domestic product.
B: shares in gross domestic product (including repair and maintenance).

[g] Shares in gross domestic product.

sectors. Table 12 shows the development of the share of labour income in the net product of different sectors for eight countries. Since for any given sector its net output is equal to the sum of wages and salaries, profits and income from self-employment (plus rent and interest), any variation in the relative number or relative income of the self-employed will influence the share of wages.

The share of labour income is low, as one would expect, where self-employment predominates (agriculture and trade) and relatively high in sectors where self-employment is unimportant (mining). One would have expected to find the same phenomenon in gas, electricity and water, but does not find it in practice.

If the share of income of the self-employed in the net product could be eliminated the residual would have to be attributed mainly to differences in profitability. Here again, in a few cases this factor may be seen at work; the high labour share of transport in France and of mining in the United Kingdom is probably an indication of low profitability.

Apart from these few examples the pattern of the labour share is a combination of these two unknown elements and shows often surprising results. Without more detailed data about the proportion of income from self-employment it is difficult to explain why, for instance, the labour share in the public utility sector should in so many cases be smaller than that of the manufacturing sector, or why it should be generally higher in building than in manufacturing when self-employment is relatively more important in the former than in the latter, or why it should be so low in manufacturing in western Germany as compared with Finland.

In the countries for which the shares of income from labour and from self-employment are available, at least for all the sectors taken together, the residual of profits, interest and rent in the net product is probably of the order of 5 to 15 per cent. Even fairly substantial variations in the profit element could therefore influence the share of wages only slightly. The main cause of inter-temporal and inter-country variations in the wage share must therefore be sought in the movements of income from self-employment. This applies quite clearly to the economy as a whole and *a fortiori* to the sector shares.[31]

The data on the labour shares by industrial sectors can, however, help to throw some light on the quantitative influence of sector developments on the aggregate share of labour income. An attempt to isolate the effects of inter-sector movements is made in Table 13. The calculations show what would have been the total share of labour income in the different years on the assumption that the share within each sector was constant at the 1950 level and that only the relative size of sectors changed. A measure of this kind can give only an approximate indication, for the results must depend on the choice of the base year and on the number of sectors which can be separately considered.[32]

Pre-war data are available for only five countries, in four of which (Finland, France, the Netherlands and Norway) changes in the relative output of different sectors have had the effect of increasing the share of labour income since 1938. In other words, the greatest expansion has taken place in those sectors where the share of labour income is higher than the average, or, conversely, sectors with a wage fraction lower than the average have expanded least or even contracted. Agriculture, which has a wage share significantly lower than the average, contracted relatively to the other sectors in three out of five countries for which pre-war figures are available. The Netherlands and Ireland, however, are exceptions in this respect, since the share of agriculture has increased. This expansion of agriculture and its absolute importance explain why Ireland is the only one of the five countries where inter-sector differences in rates of expansion have lead to a reduction in the wage fraction. The relative expansion of manufacturing industry, with the wage fraction everywhere above the national average, has contributed to raising the share of labour income in all countries.

As can be seen from Table 13, these structural changes often explain a major part of the changes actually observed in the wage fraction since 1938. Only in the Netherlands has the effect of inter-sector movements been more than offset by other influences (e.g., the decline of the wage share in manufacturing). In the post-war period, structural changes have been less pronounced, and have played a less important role. There has, in general, been an increase in the wage fraction since 1950 as a result of inter-sector movements and of a rise in the wage share within sectors. Ireland is, however, an exception. There the rise in the wage share in most sectors is more than offset by a continued relative expansion in agriculture coupled with a decline in the share of labour income in that sector.[33]

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[31] The share of labour in the net output of 14 industries within manufacturing was also examined, but the differences in the wage fraction between different industries in the same country and between the same industries in different countries were found to be as great as those between different sectors of the economy, and the movements over time were in many cases large and tending in opposite directions.

[32] For further detail on the sectors distinguished reference should be made to Appendix B.

[33] It should be remembered that 1950 was a year of much stock appreciation. If this stock appreciation could be eliminated from the data in Table 13, the wage share in 1950 would rise significantly, underlining even more the fall in the succeeding years.

TABLE 13

Analysis of changes in the share of wages and salaries in net domestic product

Change in percentage points from the wage fraction in 1950 and that part of the change due to inter-sector movements

	1938	1948	1952	1953	1954	1955
A—All Sectors						
Denmark						
I Total change	..	+2.6	+1.9	..	..	..
Change due to inter-sector movements	..	+0.5	+0.2	..	..	..
II [a] Total change	..	+2.5	+1.0	+1.1	+2.7	..
Change due to inter-sector movements	..	+0.6	+0.4	+0.5	+1.1	..
Finland						
Total change	−11.3	−0.4	+0.5	+0.4	−0.2	−0.5
Change due to inter-sector movements	−5.3	−3.0	—	+0.4	+0.6	+0.7
France						
Total change	−2.6	..	+2.7	+3.8	+4.8	..
Change due to inter-sector movements	−3.7	..	+0.9	+1.0	+0.6	..
Western Germany						
Total change	..	..	−0.8	+1.1	..	+1.0
Change due to inter-sector movements	..	..	—	+0.7	..	+0.7
Ireland						
Total change	+0.9	..	−0.5	−0.8	+0.4	+0.2
Change due to inter-sector movements	+3.0	..	−1.2	−0.9	−0.1	−0.7
Netherlands						
Total change	+0.5	+2.1	..	..	..	..
Change due to inter-sector movements	−2.2	+1.7	..	..	..	..
Norway						
Total change	−4.5	−0.7	+0.9	+2.2	+1.1	+1.0
Change due to inter-sector movements	−3.3	+0.1	+0.3	+0.8	+0.3	+0.5
United Kingdom [a]						
Total change	..	+0.7	+3.2	+2.8	+2.0	+2.5
Change due to inter-sector movements	..	+0.2	+0.5	+0.4	+0.2	+0.2
B—Manufacturing only						
Denmark [a]						
Total change	..	..	+4.8	+3.8	+3.9	+4.9
Change due to inter-industry movements	..	..	+0.6	+0.7	+0.9	+0.8
Netherlands						
Total change	+7.0	−1.0	..	..	..	..
Change due to inter-industry movements	+0.5	−0.1	..	..	..	..
Norway						
Total change	+1.2 [b]	−3.9	+0.5	+1.0	..	..
Change due to inter-industry movements [c]	−3.5 [b]	−0.5	—	−0.2	..	..
United Kingdom [a]						
Total change	..	+2.3	+5.6	+4.8	+3.5	..
Change due to inter-industry movements	..	+0.2	+0.7	+0.5	+0.5	..

Sources and methods : See Appendix B.

Note. — The table shows the break-down (in percentage points increase or decrease over 1950) of the change in each year in the percentage share of total wages and salaries in net domestic product.

Even if the share were constant at the 1950 level for each sector, the average for all sectors would still vary as a result of changes in their relative net outputs. The change in the share which would occur on this assumption is shown in the second line (" change due to inter-sector movements ") while the remaining part of the actual change is attributed to intra-sector influences. In principle, stock appreciation is excluded from the data for Denmark France, the Netherlands and Norway.

[a] Change in the share of wages and salaries in gross domestic product.

[b] Average 1935-39.

[c] Obtained by applying the average 1935-39 wage fractions. For further details, see Appendix B.

For a few countries sufficiently detailed data are available for an analysis of changes in the labour share of industry groups within manufacturing ; and the effects on the wage fraction of structural changes within manufacturing are given in the lower part of Table 13.[34]

In the two countries for which it is possible to compare the situation in 1950 with pre-war, it can be seen that the share of wages in manufacturing has declined during this period. In the Netherlands the inter-industry movements in the period had a negligible influence, whereas in Norway the pattern of expansion has tended to increase the share of wages and salaries for manufacturing industry as a whole.[35] It is difficult to say exactly which industries have contributed to this development, but it seems probable that it is above all the metal industry (where the share of labour income is much higher than the average for all manufacturing industry). For the two countries for which only post-war data are available—Denmark and the United Kingdom—inter-industry movements have had practically no effect on the development of the share of labour income in manufacturing, and the rise in the average share of labour income is due almost entirely to changes within industries.

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This survey of factor shares in national income has shown that changes in the aggregate shares of broad factor groups are partly the result of changes in the relative importance of the industrial sectors. The relative decline of income from rent, from agriculture, and perhaps from self-employment is associated with a rising share of labour income and sometimes of trading profits in the economy as a whole and also with a rising share of labour income in the non-farm business sector. The data are not full enough to provide a firm answer to the question whether there would still have been a rise in the wage share in the non-farm business sector if structural changes could have been put aside. Apart from the conceptual and statistical limitations (the number of sectors available for re-weighting, the choice of the base year, the changes in coverage of the non-farm business sector and the difficulties of measuring stock appreciation) which are sources of error and introduce a considerable element of uncertainty, there are many other exogenous factors likely to bring about changes in the wage share. Differences in the movements of labour income in the incorporated and unincorporated sectors (where income from self-employment is known, but not the associated component of wages and salaries) are one example of these difficulties. Also, the intra-sector changes are often the result of changes in the composition of output or the method of production which may require more skilled and less unskilled labour, more office and sales personnel and fewer manual workers. Such movements in types of labour income cannot in the present state of statistical materials be analysed. As labour income accounts for one-half to three-quarters of national income, the absence of a finer break-down is a considerable handicap in the understanding of changes in factor shares.

Quite apart from such changes in the composition of labour income, the relative movements of prices and profit margins exert an influence on distributive shares. Price controls have clearly lowered the share of rental income and contractual prices fixed for long periods (e.g., certain interest payments) work in the same direction. Within the business sector any widening or narrowing of profit margins will affect the division of the product into wage and salary payments on the one hand, and profits on the other. It is arguable that the forces of competition which tend to limit profit margins were less powerful in the post-war world of shortages and over-full employment than in the recession year of 1938. But the data are not in a form in which any single business sector, or at least the corporate sector of business, could be analysed in this respect. The question whether full employment has increased the share of labour income or, what amounts to the same, whether wages and salaries have risen faster than profits in the business sector cannot, therefore, be answered, at least not in a more definite form than stated in the previous sections. On the basis of the crude data available, there is hardly any trace of a lagging of labour income behind profits in inflationary periods. But the evidence is by no means conclusive, and much depends, as has been seen, on the treatment of stock appreciation and of capital consumption in the calculation of profits. Wages and salary incomes may have become highly flexible in an upward direction in periods of full employment and may have gained at the expense of distributed and undistributed profits, but again the figures do not show it, nor do they permit a distinction between fixed income receivers of various kinds, except for rent and to some extent interest income.

Although many of the details which might throw light on the causes underlying changes in factor shares are lacking, the broad picture of the substantial changes which have taken place since before the war comes out very clearly whether one looks at the share of labour income or at the shifts within agriculture or at the allocation of profits. Some of these changes, such as the lower share of rent in national income, may be temporary phenomena. Others, such as the reduced share of income from self-employment, may persist for longer and thus permit a permanently higher share of other factors. But higher shares, let it be repeated, do not necessarily mean a change in welfare or living standards, if for no other reason than the fact that the number of income recipients in the factor groups can change, as was shown in Section 3. For welfare comparisons the concept of personal or disposable income is more relevant than that of factor income.

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[34] In the case of Norway, recourse has been had to an estimate appearing in a national study (Odd Aukrust: " Den funksjonelle inntektsfordeling i Norge belyst ved nasjonalregnskapsdata ", *Statsøkonomisk Tidsskrift*, December 1956) which made a comparison based on the average share of wages and salaries in the different industries in the period 1935 to 1939—thus permitting a comparison with pre-war which would not otherwise be possible.

[35] It should be noted that the fall in the relative share of wages and salaries in manufacturing, a sector which alone accounts for one-third of national product, is offset in the Netherlands and more than offset in Norway by an increase in the share of labour income in the other sectors taken together.

TABLE 14

Austria: National income by distributive shares

Percentages and billions of schillings

	1948	1949	1950	1951	1952	1953	1954	1955
Income from employment	58.5	57.1	56.1	56.7	58.3	59.7	58.1	58.1
Of which : Public administration and defence [a]	..	9.6	9.1	8.6	8.5	8.9	8.3	7.3
Income from property and entrepreneurship received by households [b]	36.4	35.7	36.7	35.8	36.3	35.0	36.4	37.2
Saving of corporations	5.5	7.2	5.3	4.8	2.1	1.7	2.2	1.9
Direct taxes on corporations			2.2	2.2	3.0	3.0	2.7	2.3
Government income from property and entrepreneurship	—	0.3	0.2	0.9	0.6	0.9	1.0	1.0
Less interest on the public debt	−0.4	−0.3	−0.5	−0.4	−0.3	−0.3	−0.4	−0.5
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
National income in billions of schillings	25.3	34.5	41.7	55.9	63.3	63.2	71.1	81.1

Sources and methods : See Appendix B.

[a] Wages have been taken as equal to the gross output of the sector.

[b] Including income from self-employment.

TABLE 15

Belgium: National income by distributive shares

Percentages and billions of francs

	1938	1948	1949	1950	1951	1952	1953	1954	1955
Wages and salaries	..	46.5	48.5	47.3	47.5	48.3	47.6	47.3	47.4
Employers' contributions	..	6.2	6.1	5.9	5.8	6.5	6.4	6.3	6.5
Income from employment	45.7	52.7	54.6	53.2	53.3	54.8	54.0	53.6	53.9
Of which : Agriculture	..	0.8	0.9	0.8	0.8	0.8	0.8	0.7	0.7
Public administration and defence [a]	..	6.6	7.6	7.4	7.6	8.5	8.8	9.0	10.3
Income from unincorporated enterprises [b]	33.0	36.8	34.0	33.7	32.0	30.9	31.3	30.7	30.4
Of which : Agriculture	10.5	8.6	7.7	7.0	6.8	6.3	6.6	6.1	5.9
Income from property received by households	20.0	9.7	10.7	10.9	10.8	11.3	12.4	13.1	13.2
Of which : Rent	..	4.4	5.0	5.0	4.8	5.0	6.2	6.8	6.6
Interest	..	3.0	3.2	3.3	3.1	3.3	3.5	3.6	3.7
Dividends	..	2.2	2.4	2.4	2.8	2.9	2.6	2.6	2.8
Corporate transfer payments	..	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Saving of corporations	1.6	1.6	1.3	2.6	3.1	2.0	1.9	2.5	2.7
Direct taxes on corporations	1.6	1.7	1.8	1.7	2.6	2.8	2.2	2.0	1.8
Government income from property and entrepreneurship	0.0	0.1	0.1	0.5	0.5	0.6	0.7	0.7	0.7
Less interest on the public debt	−1.9	−2.6	−2.5	−2.6	−2.3	−2.4	−2.5	−2.6	−2.7
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
National income in billions of francs	64.0	257.6	256.8	275.8	314.4	324.0	334.6	349.0	368.4

Sources and methods : See Appendix B.

NOTE. — In principle, stock appreciation is excluded from national income.

[a] Including education.

[b] The income of unincorporated societies (sociétés de personnes) is after tax, which is included with direct taxes on corporations.

TABLE 16

Denmark: National income by distributive shares

Percentages and billions of kroner

	1948	1949	1950	1951	1952	1953	1954	1955
Wages and salaries	53.8	52.6	51.3	52.4	53.1	53.2	55.5	55.6
Employers' contributions	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3*
Income from employment	54.1	52.9	51.6	52.7	53.4	53.5	55.8	55.9
Of which : Agriculture [a]	7.7	7.2	6.9	6.7	6.6	6.5	6.5	6.3
Public administration and defence [a]	7.5	7.0	6.9	7.4	8.0	8.3	8.9	9.0
Income from unincorporated enterprises [b]	43.3	44.3	45.4	44.2	43.2	44.7	42.4	..
Of which : Agriculture	9.5	11.5	12.7	12.4	14.0			..
Income from property received by households:								
Rent of dwellings	2.3	2.4	2.0	1.9	1.8			..
Dividends	1.7	1.8	1.8	1.7	1.8			..
Corporate transfer payments	—	—	0.1	0.1	0.1			..
Saving of corporations	1.6	1.8	1.6	1.6	1.6			..
Direct taxes on corporations	1.2	1.1	1.3	1.5	1.8	1.7	1.7	..
Government income from property and entrepreneurship	1.2	1.3	1.4	1.3	1.4	1.6	1.7	..
Less interest on the public debt	−1.4	−1.4	−1.3	−1.3	−1.4	−1.5	−1.6	..
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
National income in billions of kroner	15.43	16.40	18.78	20.23	21.36	22.72	23.41	24.04

Sources and methods : See Appendix B.

NOTE. — In principle, stock appreciation is excluded from national income.

[a] Excluding employers' contributions.

[b] Including interest and non-dwelling rent received by households.

TABLE 17

Finland: National income by distributive shares

Percentages and billions of marks

	1938	1948	1949	1950	1951	1952	1953	1954	1955
Wages and salaries	..	55.1	56.1	55.8	53.0	56.2	56.1	55.1	55.1
Employers' contributions	..	4.0	5.7	5.9	5.7	6.1	6.1	6.1	6.1
Income from employment	50.3	59.1	61.8	61.7	58.7	62.3	62.2	61.6	61.2
Of which : Agriculture	..	8.3	6.3	6.5	6.0	6.5	6.5	5.6	5.9
Public administration and defence	..	7.1	7.4	8.4	7.0	7.6	7.9	7.3	7.5
Income from self-employment	25.8	28.9	25.4	25.2	26.3	24.3	24.5	24.5	24.3
Of which : Agriculture	..	..	..	11.9	10.0	10.3	10.7	9.4	9.2
Corporate profits [a]	9.4	7.7	8.6	9.7	11.6	9.4	8.5	8.9	9.5
Of which : Dividends [a]	..	1.5	1.4	1.5	1.9	1.7	1.7	1.9	2.1
Direct taxes	..	3.5	4.2	5.3	7.2	5.7	4.7	4.5	4.7
Rent and interest	14.3	4.1	4.2	3.9	3.8	4.0	4.8	5.0	5.0
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
National income in billions of marks	29.8	305.5	321.2	412.9	612.5	610.1	613.1	679.6	767.5

[a] *Sources and methods :* See Appendix B.

Including those surpluses of public enterprises that are not treated as indirect taxes or subsidies.

TABLE 18

France: National income by distributive shares

Percentages and billions of francs

	1938	1948	1949	1950	1951	1952	1953	1954	1955
Wages and salaries	46.9	..	45.6	44.2	46.5	46.8	47.2	47.5	47.3
Employers' contributions	5.1	..	10.4	10.8	11.2	11.4	11.7	12.0	11.8
Income from employment	52.0	..	56.0	55.0	57.7	58.2	58.9	59.5	59.1
Of which : Agriculture	3.4	..	2.7	2.6	2.4	2.4	2.4	2.3	2.2
Public administration and defence	9.0	..	11.7	12.3	12.8	12.8	13.1	12.7	12.3
Income from unincorporated enterprises	33.6	..	36.9	36.7	34.5	33.7	32.4	31.4	30.8
Of which : Agriculture	14.4	..	16.1	14.8	14.3	12.8	13.2	12.7	11.9
Income from property received by households	14.4	..	3.5	4.1	4.0	4.0	4.0	4.4	4.3
Of which : Rent	3.4	..	−0.6	−0.3	−0.5	−0.5	−0.4	−0.2	−0.1
Interest	7.3	..	0.9	1.1	1.0	1.0	0.8	1.0	0.9
Dividends	3.7	..	3.2	3.3	3.5	3.5	3.6	3.6	3.5
Saving of corporations	3.9	..	2.1	2.5	1.8	2.5	2.4	2.9	4.0
Direct taxes on corporations	0.6	..	2.5	2.8	2.9	2.7	3.1	2.8	2.7
Government income from property and entrepreneurship	0.6	..	0.2	0.4	0.7	0.6	0.7	0.9	0.9
Less interest on the public debt	−5.1	..	−1.2	−1.5	−1.5	−1.7	−1.5	−1.8	−1.8
	100.0	..	100.0	100.0	100.0	100.0	100.0	100.0	100.0
National income in billions of francs	354	..	6 396	7 307	8 828	10 507	10 806	11 535	12 906

Sources and methods : See Appendix B.

NOTE. — In principle, stock appreciation is excluded from national income.

TABLE 19

Ireland: Net domestic product by distributive shares

Percentages and millions of pounds

	1938	1948	1949	1950	1951	1952	1953	1954	1955
Wages and salaries	52.0	49.6	49.5	52.9	54.1	51.0	50.0	51.5	51.8
Employers' contributions	0.8	0.5	0.6	0.6	0.7	0.6	0.7	0.7	0.7
Income from employment	52.8	50.1	50.1	53.5	54.8	51.6	50.7	52.2	52.5
Of which : Agriculture	4.6	5.2	5.0	4.7	4.2	4.3	4.0	4.5	4.4
Public administration and defence [a]	8.0	8.0	7.7	8.8	9.1	8.7	8.8	8.9	8.8
Income of self-employed in agriculture	19.4	27.6	28.4	27.5	28.2	29.1	29.3	27.2	28.8
Corporate profits	7.9	9.6	9.8	8.0	6.9	8.8	9.9	10.5	9.3
Of which : Direct taxes	1.6	2.9	2.5	2.6	2.7	2.8	2.4	2.6	2.8
Saving [b]	3.2	3.4	4.0	4.6	4.3	3.1	3.4	3.9	3.5
Rent	6.3	3.4	3.2	3.2	3.0	2.7	2.4	2.5	2.3
Other income from property and entrepreneurship [c]	13.6	9.3	8.5	7.8	7.1	7.7	7.7	7.6	7.1
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Net domestic product in millions of pounds	145.1	303.0	320.9	322.2	341.2	381.0	415.0	415.5	430.8

Sources and methods : See Appendix B.

NOTE. — Except for 1938, the figures exclude provisions for stock appreciation.

[a] Including payments to Irish officials abroad.

[b] Saving out of domestic income only.

[c] Including income from non-agricultural self-employment.

TABLE 20

Luxembourg: National income by distributive shares

Percentages and billions of francs

	1937	1948	1949	1950	1951	1952	1953	1954	1955
Wages and salaries	..	..	52.1	53.9	46.6	46.6	54.5	52.8	50.6
Employers' contributions	..	..	6.3	6.5	5.6	5.8	6.7	7.1	7.1
Income from employment	45.3	..	58.4	60.4	52.2	52.4	61.2	59.9	57.7
Of which : Public administration and defence	..	..	..	..	..	8.7	10.1	10.1	10.1
Income from unincorporated enterprises	36.6	..	29.0	29.9	24.4	23.9	28.9	27.9	26.6
Of which : Agriculture	..	..	11.0	11.1	9.3	8.7	9.8	9.0	8.7
Income from property received by households:									
Rent	18.1	..	6.2	6.5	5.3	2.1	2.5	2.6	2.5
Interest and dividends		..				3.2	3.6	3.6	3.6
Corporate transfer payments		..	0.5	0.4	0.7	0.7	0.6	0.4	0.5
Saving of corporations		..	1.6	—	12.0	6.9	−5.5	0.4	2.4
Direct taxes on corporations		..	5.2	3.6	6.0	11.3	9.1	5.6	6.9
Government income from property and entrepreneurship		..	0.8	0.9	0.7	0.9	1.0	1.0	1.2
Less interest on the public debt	..	..	−1.7	−1.7	−1.3	−1.4	−1.4	−1.4	−1.4
	100.0	..	100.0	100.0	100.0	100.0	100.0	100.0	100.0
National income in billions of francs	2.26	..	9.55	9.67	13.25	14.25	12.82	13.36	14.67

Sources and methods : See Appendix B.

NOTE. — In principle, stock appreciation is excluded from national income.

TABLE 21

Netherlands: National income by distributive shares

Percentages and billions of guilders

	1938	1948	1949	1950	1951	1952	1953	1954	1955
Wages and salaries	48.7	53.1	50.9	50.9	51.7	50.5	49.5	50.8	50.4
Employers' contributions	2.1	2.3	2.4	2.4	2.7	3.0	3.3	3.3	3.2
Income from employment	50.7	55.5	53.3	53.3	54.4	53.5	52.8	54.1	53.6
Of which : Public administration and defence [a]	7.8	10.5	9.0	9.0	8.7	8.9	9.1	9.4	9.3
Other income of households from property and entrepreneurship [b]	43.7	38.9	40.6	38.4	41.0	39.9	42.3	42.3	42.2
Saving of corporations	3.9	2.9	2.7	4.5					
Direct taxes on corporations	0.6	4.4	4.6	4.9	5.3	7.0	5.3	4.1	4.5
Government income from property and entrepreneurship	4.3	2.0	2.5	2.2	2.3	2.3	2.2	2.3	2.1
Less interest on the public debt	−3.3	−3.7	−3.7	−3.3	−3.0	−2.7	−2.6	−2.8	−2.4
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
National income in billions of guilders	4.87	12.76	14.00	15.51	16.82	17.83	19.22	21.27	23.68

Sources and methods : See Appendix B.

NOTE. — In principle, stock appreciation is excluded from national income.

[a] Including education.

[b] Including income from self-employment.

TABLE 22

Norway: National income by distributive shares

Percentages and billions of kroner

	1938	1948	1949	1950	1951	1952	1953	1954	1955
Wages and salaries	49.8	52.8	53.9	53.5	49.4	52.4	55.5	54.4	54.4
Employers' contributions	0.4	0.8	0.8	0.8	0.8	0.9	1.0	1.0	1.0
Income from employment	50.2	53.6	54.7	54.3	50.2	53.3	56.5	55.4	55.4
Of which : Agriculture	1.8	1.7	1.6	1.4	1.1	1.1	1.0	0.9	0.8
Public administration and defence	2.0	3.2	3.5	3.1	3.2	3.7	4.2	4.1	4.3
Income from unincorporated enterprises [a]	12.7	13.7	14.4	13.0	12.6	13.0	12.2	13.0	12.1
Of which : Agriculture, forestry and fishing	9.5	10.7	11.4	10.3	10.3	10.6	9.8	10.6	9.8
Income from property received by households:									
Rent of dwellings	4.6	0.5	0.5	0.6	0.4	0.2	0.5	0.7	0.8
Interest	3.1	1.6	1.6	1.7	1.5	1.5	1.6	1.6	1.8
Dividends	2.8	0.9	1.0	0.9	0.9	0.9	0.9	1.0	1.0
All other income from property and entrepreneurship of households [b]	30.1	30.8	28.6	29.8	25.1	32.0	29.2	29.2	29.9
Government income from property and entrepreneurship	1.2	1.0	1.4	1.7	1.0	0.9	1.0	1.1	1.2
Less interest on the public debt	−1.9	−1.2	−1.2	−1.1	−0.8	−0.9	−1.0	−1.0	−1.2
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
National income in billions of kroner	4.58	11.22	11.75	12.79	15.79	16.95	17.12	18.70	19.81

Sources and methods : See Appendix B.

NOTE. — In principle, stock appreciation is excluded from national income.

[a] Includes the income of independents in agricultural and in professional services only.

[b] Includes the income of other self-employed persons, the saving and direct taxes of corporations, and business rent.

TABLE 23

Sweden: Gross national product by distributive shares [a]

Percentages and billions of kronor

	1938	1948	1949	1950	1951	1952	1953	1954	1955
Income from employment	52.0	60.6	59.8	58.3	57.2	61.3	63.0	62.7	..
Income from unincorporated enterprises	13.6	14.4	14.7	15.0	14.3	14.2	13.9	13.4	..
Income from property received by households [b]	5.0	2.4	2.4	2.3	1.9	1.8	1.9	2.0	..
Saving of corporations [b] [c]	22.8	15.2	16.1	17.7	20.0	15.8	13.8	14.3	..
Government income from property and entrepreneurship [b]	2.7	1.9	2.4	2.3	2.1	2.0	2.3	2.5	..
Less interest on the public debt	−1.4	−1.7	−1.6	−1.6	−1.4	−1.2	−1.2	−1.2	..
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Gross national product in billions of kronor	11.08	23.75	24.90	26.83	33.09	36.44	36.77	38.94	..

Sources and methods : See Appendix B.

NOTE. — In principle, stock appreciation is excluded from national product.

[a] The constituents do not add to the total o national product on account of the " regular residual ". See Appendix B.

[b] Including provisions for depreciation, maintenance and repair.

[c] Before deduction of corporate taxes.

TABLE 24

Switzerland: Net domestic product by distributive shares

Percentages and billions of francs

	1938	1948	1949	1950	1951	1952	1953	1954	1955
Wages and salaries	46.4	54.5	55.1	54.2	54.9	55.1	54.6	53.6	53.8
Employers' contributions	2.8	4.6	4.9	4.9	4.8	4.9	5.0	4.9	5.1
Income from employment	49.2	59.1	60.0	59.1	59.7	60.0	59.6	58.5	58.9
Income from unincorporated enterprises	21.8	21.6	20.6	21.2	20.7	19.7	19.8	20.3	19.9
Of which : Agriculture	7.0	7.3	6.4	7.1	6.9	6.1	6.0	6.6	6.2
Corporate profits [a]	8.0	7.5	7.4	7.5	7.5	8.0	8.2	8.8	8.7
Of which : Dividends	3.5	2.1	2.1	2.2	2.3	2.4	2.4	2.4	2.3
Saving	2.0	2.9	2.5	2.6	3.0	3.2	3.5	3.6	3.9
Direct taxes	2.5	2.5	2.8	2.6	2.2	2.4	2.3	2.8	2.5
Rent	10.4	6.6	6.8	6.8	6.7	6.7	6.7	6.6	6.6
Interest [b]	7.5	2.8	3.0	3.0	2.9	3.0	3.0	3.0	3.1
Government income from property and entrepreneurship [c]	3.1	2.4	2.2	2.5	2.5	2.6	2.7	2.8	2.8
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
National income in billions of francs	8.57	17.58	17.46	18.15	19.47	20.33	20.91	22.14	23.17

Sources and methods : See Appendix B.

NOTE. — In principle, stock appreciation is excluded from national income.

[a] Excluding the surplus of co-operative societies.

[b] Excluding the excess of interest on the national debt over the imputed interest of productive assets of the Federal Government.

[c] Including the surplus of co-operative societies.

TABLE 25

United Kingdom: National income by distributive shares

Percentages and billions of pounds

	1938	1948	1949	1950	1951	1952	1953	1954	1955
Wages and salaries	60.1	67.8	67.3	67.3	68.9	68.0	67.2	67.0	68.9
Employers' contributions	2.6	3.6	4.1	4.2	4.1	4.2	4.2	4.2	4.3
Income from employment	62.7	71.4	71.4	71.5	73.0	72.2	71.4	71.2	73.2
Of which : Agriculture	..	2.7	2.7	2.5	2.4	2.3	2.2	2.1	2.1
Public administration and defence	..	7.4	7.2	7.1	7.4	7.5	7.2	7.0	6.9
Income from unincorporated enterprises [a]	12.9	11.9	11.9	11.2	10.1	10.5	10.2	10.0	9.7
Income from property received by households	22.5	11.1	10.7	10.9	10.1	10.3	10.4	10.2	10.6
Saving of corporations	3.8	4.8	3.3	4.5	5.5	3.1	4.4	6.0	4.8
Direct taxes on corporations	1.9	6.2	7.6	7.2	6.1	7.6	7.1	6.0	6.0
Government income from property and entrepreneurship	−3.8	0.6	1.2	0.3	0.4	0.9	1.2	1.5	1.5
Less interest on the public debt		−6.0	−5.7	−5.5	−5.4	−5.6	−5.6	−5.3	−5.6
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
National income in billions of pounds	4.82	9.47	10.11	10.63	11.63	12.63	13.49	14.48	15.23

Sources and methods : See Appendix B.

NOTE. — In principle, stock appreciation is excluded from national income.

[a] Before deduction of interest payments.

Chapter IX

THE DISTRIBUTION OF PERSONAL INCOME BY SIZE

Two facets of the distribution of income have been studied in Chapters VII and VIII: the distribution of income by industry of origin and by factor shares. This chapter examines a third aspect of income distribution—namely, the distribution of personal income by size. Here the incomes of persons from work in any sector (including their incomes from property and from transfers) are grouped according to size for the economy as a whole, or for occupational and industrial sub-groups, and attention is focused on the inequality of incomes and the demographic and economic factors which tend to make personal income distributions more equal or less equal. In the first instance, incomes before tax will be considered, but the re-distributive effects of direct taxation will later be taken into account.

1. Introduction: Definitions and Coverages

The Concepts of Income and of Income Recipient

The definition of income and of the recipient unit is clearly of great importance in the interpretation of size distributions of income, and the choice of concepts would in theory depend very much on the purpose of the study undertaken. In practice, there is no choice but to accept the definitions used in the published material, which are derived almost exclusively from tax returns. The definitions depend, therefore, on the existing tax laws and differ not only from one country to another, but possibly also from one period to another in the same country.[1] In none of the countries examined [2] does published information, or such supplementary information as could be obtained, make possible adjustments which would significantly improve the comparability of the data.

The concept of income used is a fairly wide one, generally covering total income from all sources, less losses and expenses incurred in acquiring the income. Income is sometimes shown net of national insurance contributions; in other cases all types of insurance contributions are permissible deductions up to a certain maximum limit beyond which tax on such distributions is payable, and there is a special case (Denmark) where income reported is also net of all direct taxes paid, other than the state tax on income.

The data on the distribution of income after tax show pre-tax income minus taxes paid on income to the central government, except in the case of Sweden, where for the years 1935 to 1948 all direct personal taxes are deducted.

The income concept used in the distributions for industrial and occupational sub-groups—referred to throughout this study as partial distributions—is the same as in the aggregate pre-tax distributions for the Netherlands and Sweden; in the case of Denmark the partial distributions show after-tax incomes only.

As to the recipient unit, the combined income of married couples is everywhere counted as one income, except in the Swedish partial distributions, where married women's earnings are counted separately. Dependent children's earnings are counted with those of their parents in Sweden. In the United Kingdom and Denmark they are recorded independently, and this is also true of the pre-war Dutch distributions. In the German data and in the post-war data for the Netherlands, dependent children's income from sources other than employment is counted with parents' income, while income from employment is recorded separately.

The Countries covered

The coverage, in respect both of countries and of years considered, is far less satisfactory than in the preceding chapters. While in recent years there has been significant progress in a number of countries in the collection of data relating to size distributions of income, comparable information going back over a period sufficiently long to lend itself to analysis—an early post-war or a late pre-war year—is scarce. Information of this type is available virtually only in tax returns.[3] In the case of most European countries the income covered by size-range data constitutes such a small part of aggregate personal income (as derived from national accounts estimates),[4] and the persons considered account for such a limited proportion of the earning population that they cannot be used as indicators of size distributions of income for the economy as a whole.

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[1] The latter is true to the extent that the income shown is net of permissible allowances of one kind or another up to a maximum limit and there has been a change in this limit over time or a change in the type of deductions allowed.

[2] i.e., Denmark, western Germany, the Netherlands, Sweden and the United Kingdom.

Nor can tax data be relied upon to reveal the shifts which have occurred in the size distribution within a segment of personal income, because the extent to which the data are affected by changes in taxation may often be sufficiently important to obscure completely any real or non-statistical changes in the distribution.

These shortcomings are so general in the available statistics of European countries that there are only five countries for which the data give a reasonably reliable indication of changes in the size distribution of aggregate personal income. These countries are the United Kingdom, western Germany, the Netherlands, Sweden and Denmark. For these five countries distributions relating to total personal income before tax and (except for Germany) after tax are here analysed. For the Netherlands, Sweden and Denmark the distribution of income by size within groups classified according to industrial attachment, occupational status and other socio-economic characteristics will also be examined.

The distributions compare the latest available year with an early post-war year and wherever possible a late pre-war year, but the years do not coincide for all countries.[5]

Coverage in Respect of Income

The data are far from satisfactory even for the five countries for which a comparison with a pre-war year is possible, since they are based essentially on tax returns and suffer in varying degree from many of their limitations. The most serious of these shortcomings is that they cover a varying and unknown percentage of income recipients and of total income each year. It will be seen from Table 1 that from 15 to 20 per cent of aggregate personal income is left out in the distributions shown; for Denmark the proportion exceeds 30 per cent.

The income omitted consists partly of income which cannot easily be attributed to income ranges, such as investment income of non-profit-making institutions and life insurance, superannuation funds, etc. Secondly, there is income left out because of legal underestimation on the part of the beneficiary, such as various types of imputed income[6] (e.g. income in kind of domestic servants and farm labourers, consumption of own produce in agriculture, income imputed to owner-occupied dwellings, etc.). Fraudulent under-declaration is also important; the amounts involved are thought to be as high as 10 to 15 per cent of the total reported income, except perhaps in the United Kingdom.[7]

It is a general feature of the size-range statistics of all the five countries that they leave out these types of income,[8] and there is little information on which estimates of the magnitudes involved could be based. But it is certain that they account for the greater part of the 15 to 30 per cent gap between aggregate personal income and the total given in the statistical distributions.

Finally, certain types of income, or the income of certain categories of recipients, are not taken into account. The importance of this factor varies considerably from one country to the other, depending on the tax laws and on the extent to which the basic data have been adjusted to bring in income omitted and to obtain comparability over time. From the detailed account of the coverage of the data for each country given in Appendix B, it can be seen that in most countries income considered is net of expenses incurred in acquiring the income, life insurance premiums and employees' contributions to social security. Old-age benefits and relief, military pensions and similar receipts are also generally excluded, either because they are allowable in reported income or because the beneficiaries in most cases fall below the tax exemption limit.

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[3] Population censuses and consumer surveys are important sources of personal income data in some countries. It is difficult to use this material, however, as the definitions adopted with respect to income and the income recipient usually differ importantly from one Survey or census to the next. Also these definitions differ from those used in tax returns so that Survey or census material can rarely be used to improve the latter.

[4] Thus, for instance, in France, tax return data on size distribution cover less than 20 per cent of total personal income, while in Italy there are no official data relating to size distribution of income whatsoever.

[5] They refer for the United Kingdom to 1938, 1949 and 1955; for pre-war Germany to 1936 and for western Germany to 1950; for the Netherlands to 1939, 1946 and 1950, and with respect to partial distributions to 1946 and 1950; for Sweden to 1935, 1945, 1948 and 1954, and for partial distributions to 1945 and 1954; for Denmark to 1939 and 1952, and with respect to partial distributions to 1939, 1948 and 1953.

[6] There are several other differences between valuation methods used in reporting income for taxation purposes and those used in national accounts estimates, which would make for discrepancies between the totals for personal income obtained from the two sources. Thus the treatment of depreciation generally differs, and the averaging over several years of income and losses which are permitted for taxation purposes in some countries may give quite different results from national income estimates, particularly for agriculture and other industries where small non-corporate enterprise predominates. Also capital gains, which are excluded in national accounting, are partly taken into account (e.g., in the Netherlands and Denmark) in income reported for taxation purposes.

[7] For estimates of tax evasion see *Het Nationale Inkomen van Nederland 1921–1939*, Centraal Bureau voor de Statistiek, Utrecht, 1948, p. 11 (Netherlands); N. Ussing, " En fordeling af skatter og sociale ydelser i 1949 paa sociale grupper", *Socialt Tidsskrift*, No. 7–8, 1953, p. 231 (Denmark); D. Seers, *The Levelling of Incomes since 1938*, p. 44 (the United Kingdom); and R. Bentzel, *Inkomstfördelingen i Sverige*, Uppsala, 1953, p. 63 (Sweden).

[8] Except in the case of the Swedish data for 1935–1948, which have been adjusted to obtain a very complete coverage. The development since 1948 has been indicated by distributions giving taxpayers' income only.

Other incomes below the tax exemption limit are included in the British, Swedish and Danish data only. For the first two countries, the basic data have been adjusted [9] to obtain fuller coverage, while in Denmark the original tax records cover all income recipients down to the zero income level. In the case of western Germany and the Netherlands the incomplete coverage affects mainly income from sources other than dependent employment ; the German data have been adjusted to include wage and salary earners omitted in the wage tax returns, and in the Netherlands post-war tax returns on wages and salaries record incomes down to a very low level, while for pre-war years estimates are available of incomes below the exemption level earned by economically active persons. It is therefore only the aggregate distributions for Sweden in 1954 and the partial distributions for 1945 and 1954 that completely ignore incomes below the tax exemption limit.[10]

There is no satisfactory way of dealing with the problem of the exemption limit. An adjustment of the data to cover only income above an exemption limit held unchanged in terms of constant prices removes only part of the problem, as the coverage of the data would change with changes in the level of real incomes. Any such adjustment of the exemption limit would in any case be a very arbitrary operation, because it would involve splitting up a usually very big lower group of incomes, the internal distribution of which is completely unknown. Moreover, tax exemption limits normally depend on the burden of dependants, and details about family size in taxation statistics are very scarce.

Coverage in Respect of Recipients

The coverage of the data is generally fuller for income recipients than for amounts of income, as is to be expected. The income recorded for taxation purposes is rarely the total of a person's income, and certain types of income, such as that of non-profit-making institutions, cannot be allocated by size ranges. The degree of coverage as measured [11] in Table 1 cannot, however, be expected to reach one hundred per cent [12] as it is clear that not every person aged fifteen and over (excluding married women) has a separate income. It is also evident that the inter-country and inter-temporal differences revealed in the second column of Table 1 reflect not only differences in the degree of coverage, but also the fact that young people go to work earlier in one country than in another and that activity rates of young persons change over time.[13] Furthermore, the proportion of old persons having separate incomes varies between countries and over time.

TABLE 1

Coverage of size-range data

Country	Year	Coverage in respect of	
		Amount of income [a]	Number of incomes [b]
United Kingdom . .	1938	86	92
	1949	84	97
	1955	84	98
Pre-war Germany .	1936	*ca.* 80	. .
Western Germany .	1950	*ca.* 80	80
Netherlands . . .	1938	85	79
	1946	83	74
	1950	79	79
Denmark	1939	63	88
	1952	68	97
Sweden	1935	*ca.* 100	100
	1945	*ca.* 100	100
	1948	*ca.* 100	100
	1948 unadjusted tax returns	84	91
	1954	82	85

Sources : See Appendix B.

[a] Income covered in size-range statistics as percentage of total personal income as defined in national income statistics.

[b] Number of income recipients as a percentage of the population aged 15 and over, excluding married women.

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[9] For Sweden, see Bentzel, *loc. cit.* : for the United Kingdom the estimates are those of the Central Statistical Office.

[10] In Sweden the tax exemption limit in state taxation of income was roughly doubled by increasing permissible allowances between 1945 and 1954. The price rise over the same period was of the order of 50 to 60 per cent. It is likely, therefore, that the coverage of the partial distributions for Sweden has not increased, and perhaps even decreased in spite of price inflation. As far as the over-all distributions for 1948 and 1954 are concerned, it should be noted that there was a decline in the number of incomes reported over this period.

[11] An alternative way of measuring coverage would be to take the total of income recipients reporting, plus their dependants, as a percentage of the total population. This can be done for the Netherlands and gives a coverage of 97 per cent in 1950. If the number of dependent children, the total of which exceeds the entire population in age groups below 19 years, is reduced by the number of persons below 19 years reporting separate incomes, the coverage for 1950 amounts to 93 per cent.

[12] The very full coverage of the Swedish data for the period 1935 to 1948 results from the fact that the estimates (made by Mr. R. Bentzel) have been based on the assumption that the total of persons aged 15 and over, excluding married women, have separate incomes.

[13] See the SURVEY for 1955, page 125.

2. The Inequality of Incomes before and after the War

In most north-western European countries total personal income, which includes transfers, is slightly larger than total national income, but the development in the two magnitudes has been very similar since the late pre-war period. Table 2 shows the trend of personal income per head at constant prices since before the war, and serves as a background against which the changes in the size distribution of incomes must be seen. Attention will therefore be centred on the changes in real income between the years for which distributional data are shown.

The country which experienced the most pronounced changes is Sweden, where personal income per head in 1954 may have been 80 per cent greater than in 1935 (a year for which real income data are not available). Even since 1948 per capita real income had increased by 21 per cent, while the rise since 1945 (the year examined in the partial distributions) may have been as much as one-half. The increase in personal income per head in the United Kingdom and Denmark since before the war is more modest—14 and 7 per cent respectively—with a somewhat bigger increase since 1948.

In the Netherlands 1950 shows little improvement over pre-war, but the rise between 1946 and 1950 has been of the order of 25 per cent. Western Germany is clearly a special case, as national income per head in 1950 had only just recovered to the pre-war level. Marked progress has been made since then, however; per capita national income in 1956 was more than 50 per cent larger than in 1950.

Table 2

Indices of real personal income per head

1938 = 100

Year	United Kingdom	Western Germany [a]	Netherlands	Denmark	Sweden [b]
1948	96	..	99	97	132
1949	98	84	101	100	133
1950	100	94	99	102	137
1951	100	104	99	99	141
1952	102	109	101	103	150
1953	106	115	110	107	154
1954	110	123	117	109	160
1955	114	135	126	..	..

Sources : See Appendix B.

[a] Data relate to national income; base year 1936.

[b] Base year 1938/39.

Measuring Inequality

Changes in the size distribution of income will be studied mainly with regard to changes in the relative rather than in the absolute distribution. This is desirable because the study is concerned with several countries and, for each country, with years separated by periods of marked price changes. Three problems will be examined: first, whether the distribution of income has become more or less equal over the period studied ; secondly, over which ranges on the income scale the most important shifts have taken place ; and, finally, how the position at the two extremes of the scale has changed.

The degree of inequality is illustrated by means of Lorenz curves which show the percentage of aggregate income received by a given percentage of recipients arrayed by the size of their income. The degree of inequality is measured by the associated coefficient of inequality, which is the ratio of (*a*) the area between the Lorenz curve and the diagonal of fully equal distribution to (*b*) the area of the whole triangle under the diagonal. " Maximum equalization percentages " have also been calculated which indicate the percentage of total income which would have to be transferred from higher to lower income ranges if complete equality were to be obtained. Higher coefficients indicate greater inequality.

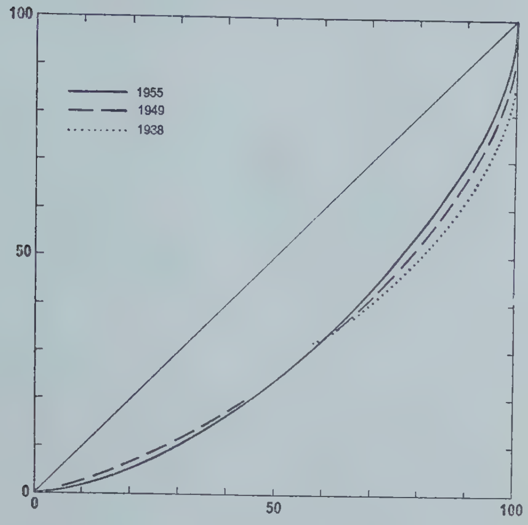
The well-known shortcomings of inequality coefficients should be kept in mind in interpreting the data. The standard of perfect equality against which existing inequality is measured represents in no way a distribution which on economic, social or political grounds could be considered as an ideal or optimum one. The standard sets a clearly unrealistic distribution, in which the criterion of equality applies to the unit on which the empirical distributions are based without making any allowance for inequality which would be justifiable or desirable when account is taken of age, experience, skill, risk and similar factors. Thus, in the case of the distributions which classify married couples' earnings jointly and children's earnings generally separately, the standard against which inequality is measured requires that the earnings of youngsters in part-time employment (in so far as they are included in the empirical distribution) should equal the total of income earned by married couples where both parties are in full-time employment.

Furthermore, the fact that a completely equal distribution is used as a basis of reference means that the Lorenz curve and the associated inequality coefficient are highly insensitive to anything but very big changes in the distribution. Thus, significant

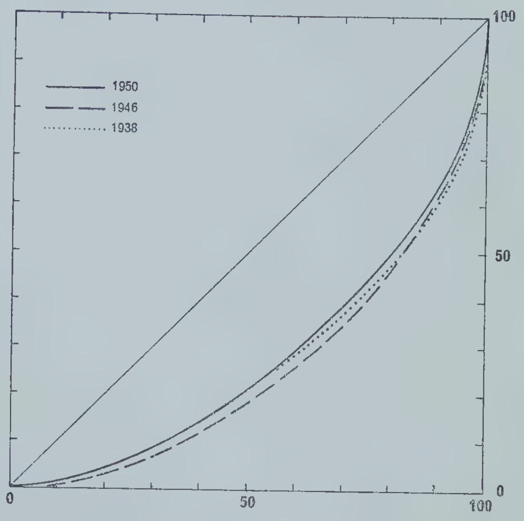
CHART 1

Distribution of income before tax

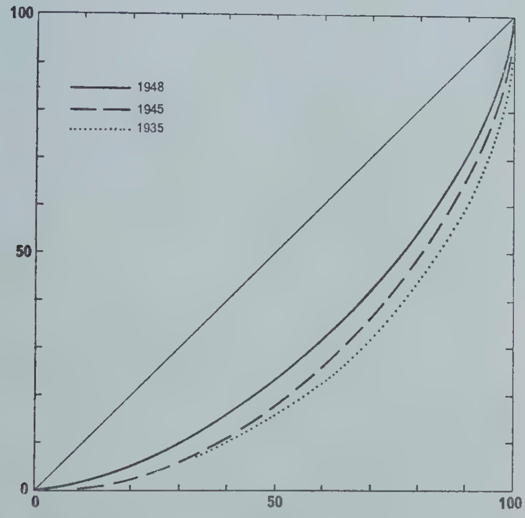
Lorenz curves



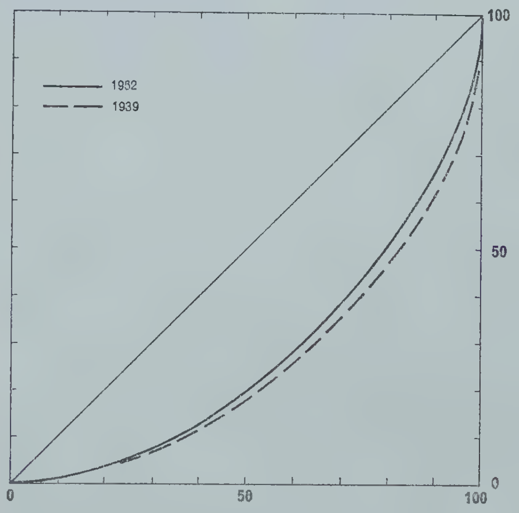
UNITED KINGDOM



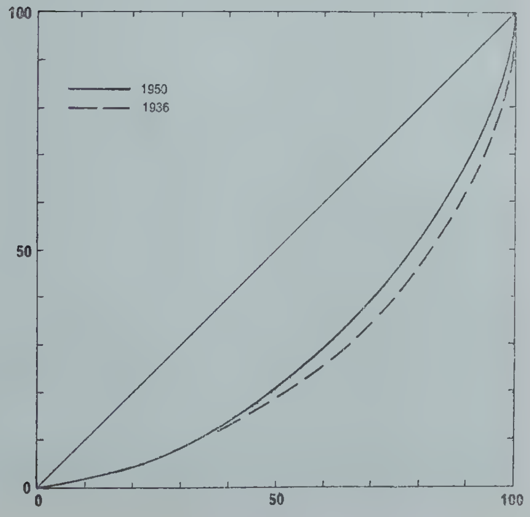
NETHERLANDS



SWEDEN



DENMARK



WESTERN GERMANY

Sources : See Appendix B.

NOTE. — Horizontally: percentage of income recipients with an income lower than X. Vertically: percentage of total income received by income recipients with an income lower than X.

TABLE 3

Percentage distribution of total income before tax by decile and percentile groups

	United Kingdom			Germany		Netherlands			Denmark		Sweden				
	1938	1949	1955	Pre-war 1936	Western 1950	1938	1946	1950	1939	1952	1935	1945	1948	1948 [a]	1954
Decile groups:															
1	33.2	7.2	10.7	1	1	28.5	1.0	1.3	7.6	1.4	16.0	2.4	3.2	1.2	2.0
2				2	3		2.2	2.9		6.9				3.3	3.6
3		4.3		4	4		3.4	4.0				3.7	4.0	4.8	5.0
4		5.5	22.0	4	4.5		5.0	5.6	17.6	5.4		4.9	5.6	5.9	6.2
5		7.0		7	7.5		6.4	7.2		7.0		6.7	7.3	7.5	7.8
6		8.0		8.5	9		8.0	8.5		8.8	6.7	8.6	9.0	9.0	9.3
7	7.5	9.7	23.6	9.5	11	8.3	9.3	9.8	9.0	10.6	9.0	10.6	11.4	10.6	10.6
8	9.3	10.8		11	12	10.7	11.7	11.7	12.3	29.2	12.2	12.5	12.9	12.5	12.7
9	12.0	14.5	14.4	14	14	13.8	14.7	14.0	15.9		16.6	16.5	16.3	15.2	15.5
10	38.0	33.0	29.3	39	34	38.7	38.3	35.0	37.6	30.7	39.5	34.1	30.3	30.0	27.3
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Percentile groups:															
90–92.5	4.0	4.4	9.1	5.3	5.0	4.5	5.3	4.6	4.8	10.6	5.2	5.0	4.8	4.5	5.0
92.5–95	4.5	4.9		5.8	5.4	5.3	5.7	5.8	6.1		6.2	5.6	5.4	5.5	5.3
95–97.5	6.7	6.7	6.0	6.9	6.5	7.3	8.1	6.9	6.7	6.6	7.9	7.5	7.0	6.5	6.1
97.5–98.75	5.1	4.6	5.3	5.3	4.7	5.3	6.4	4.8	5.0	4.1	5.5	5.3	4.7	4.5	4.1
98.75–100	17.7	12.4	8.9	15.7	12.4	16.3	12.8	12.9	15.0	9.4	14.7	10.8	8.4	9.0	6.8
Total	38.0	33.0	29.3	39.0	34.0	38.7	38.3	35.0	37.6	30.7	39.5	34.2	30.3	30.0	27.3
Inequality coefficient	0.43	0.42	0.41	0.49	0.45	0.48	0.50	0.45	0.50	0.44	0.54	0.48	0.44	0.40	0.38
Maximum equalization percentage	30	28	27	34	31	33	35	31	36	31	38	33	31	28	26

Sources: See Appendix B.

[a] Data are based on unadjusted tax records.

improvements in the position of low versus high income ranges may take place with a movement of the curve towards the line of equality which would hardly be perceptible visually and with a reduction in the inequality coefficient of only a few percentage points. To overcome this disadvantage, and in general to bring out shifts over the income ranges which are difficult to read off the curve on the scale used, tables have been constructed showing the share of total income held by decile, and at the upper extreme of the distribution, by percentile groups. These income shares which have been derived from the curve are subject to rather large errors, since the number of known points on the curve is limited. Details on the distribution within the lower income ranges are completely lacking for most countries.

Finally, it should be emphasized that in what follows no account is taken of changes in real incomes. It is only if price changes can be assumed to have affected incomes in all ranges in a similar manner that an unchanged inequality coefficient or a stable Lorenz curve can be interpreted to mean that the degree of inequality in the distribution of real income has not changed.

Lorenz curves for the over-all distribution of income before tax in different years are shown for five countries in Chart 1, and Table 3 gives the associated measures of inequality as well as the percentage distribution over decile and percentile groups derived from the curves. Only for western Germany, Sweden and Denmark are the post-war curves distinctly closer to the line of equality than the pre-war curve. The shift is particularly marked in the Swedish distributions for the period up to 1948, which might be expected in view of their very full coverage in respect of low incomes. The pre-war and the early post-war curve for the Netherlands intersect, while there is a clear movement in the direction of greater equality between 1946 and 1950.[14] In the case of the United Kingdom all the three curves intersect. The levelling of income differences within the top third of income recipients appears to have been almost counterbalanced by the tendency towards a less equal distribution over the remaining ranges. Thus it is seen from Table 3 that the decline in the inequality coefficient and the maximum equalization percentage for the United Kingdom is of the order of two to three percentage points only.

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[14] The size distribution of income before tax for 1952 is practically identical with the one for 1950.

Indices for the Netherlands also show that the degree of inequality may not have changed much since before the war.[15] In a recent study by the Dutch Central Statistical Office,[16] results were obtained for family incomes and for incomes of persons living alone which indicate a slightly greater reduction in the degree of inequality since before the war than that shown in Table 3.

In all the five countries considered, the poorer half of the population received in post-war years from 20 to 25 per cent of total income, the following 20 per cent disposed of about 20 per cent of total income, while 25 to 30 per cent of total income was held by the eighth and ninth decile groups. The share of total income received by the lower seven decile groups has increased since before the war and the gain is relatively more important in the seventh decile than in the lowest six in the United Kingdom, western Germany and the Netherlands. The contrast between the development in the two groups is particularly marked in the United Kingdom, where, according to the estimates in Table 3, the share held by the poorest 60 per cent of the population has hardly changed. The relative improvement in the eighth decile is also a general phenomenon, while the position of the ninth decile has remained stable except in the United Kingdom, where its share in total income increased by more than 20 per cent. The percentage share in total income of the tenth decile has fallen everywhere; the proportion of income held by this group, which was not far below 40 per cent in all five countries in pre-war days, has declined to 30 per cent or less in the United Kingdom, Sweden and Denmark and to 35 per cent in the other two countries. In western Germany, Sweden and Denmark the top five percentile groups have all seen their relative position deteriorate; in the United Kingdom and the Netherlands, on the other hand, there is no loss in income shares before one gets to the top three.

The fact that these few per cent of top income receivers who have had their income shares reduced receive such a large proportion of total income means that the levelling of income observed in the total distribution is to a large extent due to these changes at the upper end of the scale. In fact, fully one-half to two-thirds[17] of the movement towards greater equality in the over-all distribution of income before tax is accounted for by the " transfer " of income from the top five per cent to the remaining 95 per cent of the population. The remainder is due to a general leveling of incomes within the latter group. The tendency towards a more equal distribution within the top five per cent has been marked in all five countries, but is of limited importance in explaining the " reduction " in the over-all inequality because of the low weight of this group.

The Declining Share of the Top Income Ranges

The sharp deterioration since before the war in the relative position of the upper few percentile groups in the distribution of income before tax has already been shown in Table 3. The top five per cent of income recipients have had their share in before-tax income reduced by more than 30 per cent in the United Kingdom and Sweden; in the other three countries the decline has been less striking but still important—ranging from 15 per cent in the Netherlands and western Germany to 25 per cent in Denmark.

Certain types of income payments—i.e., income from property—which have done less well than earned income since the pre-war period, tend to be relatively important in these upper income ranges. This is brought out by the figures in Table 4. It is seen that interest and dividend payments account for a much higher share of total income among the richest five per cent of the population than in other income ranges. Rent is also generally more important in very high incomes than further down the scale, but the difference is much less marked than in the case of interest and dividend payments. It is only in extremely high income ranges, however, that property income accounts for an important share of total income; in the upper five percentile groups the share is no more than about 15 to 20 in the Netherlands and the United Kingdom and very much smaller in the other two countries.[18]

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[15] The pre-war series are, however, not strictly comparable with post-war data. The former include traders, farmers and other independent entrepreneurs with incomes below the tax exemption limit, while in the post-war distributions incomes below the tax exemption limit concern, by and large, only wages and salaries. This would imply that the distributions shown overestimate the development made towards greater equality.

[16] *Statistische en econometrische onderzoekingen*, 4th quarter 1956. The distribution of family incomes in the Netherlands in 1949 and 1954.

[17] This has been estimated by comparing inequality coefficients obtained for three distributions in which it was assumed that the only change between the two years studied had been (*a*) the shift in income shares from the top 5 per cent to the bottom 95 per cent of the distribution; (*b*) the reduction in relative inequality within the lower 95 per cent segment; (*c*) the reduction in relative inequality within the top 5 per cent segment.

[18] The very low figures for interest and dividends in western Germany result from the fact that few western German companies distributed any dividends in 1950, and where a distribution took place it generally involved very modest amounts. The share of interest and dividends in total income assessed for

(Continued on next page)

TABLE 4

Investment income in selected income ranges

Income ranges		Interest and dividends	Rent
Limits in national currencies	Limits in terms of percentile groups	Percentage of total net income [a]	
United Kingdom 1949/50 (£)			
135–350	21–69	3.0	1.7
350–500	69–88	2.3	1.6
500–800	88–96.2	4.8	2.4
800–1,500	96.2–98.6	13.8	4.2
1,500–10,000	98.6–99.96	30.9	4.6
10,000 and above	99.96–100	55.5	3.0
TOTAL		8.6	2.4
Western Germany 1950 (1,000 DM)			
Below 3	Below 66	0.4	1.2
3–5	66–90	0.5	.9
5–8	90–97.2	.1	1.8
8–12	97.2–98.8	.4	2.3
12–100	98.8–99.98	.5	1.3
100 and above	99.98–100	1.5	.7
TOTAL		.1	1.4
Netherlands 1952 (1,000 Fl.)			
Below 4	Below 76	1.9	1.4
4–6	76–90	2.4	1.3
6–10	90–96.8	4.8	2.0
10–15	96.8–98.5	7.9	2.4
15–50	98.5–99.96	14.7	2.5
50 and above	99.96–100	29.2	1.3
TOTAL		5.3	1.6
Sweden 1950 (1,000 Kr.)			
Below 7	Below 69	2.5 (.4) [b]	1.1
7–10	69–89	1.1 (.3)	.5
10–15	89–96.5	2.0 (.7)	1.2
15–20	96.5–98.3	4.6 (1.9)	1.6
20–100	98.3–99.97	6.4 (5.2)	2.9
100 and above	99.97–100	15.5 (15.2)	4.2
TOTAL . . .		2.5 (1.0)	1.1

Sources : **United Kingdom:** *Cmd. 8436*, January 1952; **Western Germany:** *Statistik der Bundesrepublik*, Band 125 (I/1956); **Netherlands:** *Statistisch Zakboek* 1956; **Sweden:** *Census of the Population in 1950, VII, Statistics on Income*, 1956.

[a] Income after deduction of losses, life insurance premia and other deductions allowed for tax assessment.

[b] The figures in brackets relate to dividends earned on Swedish shares.

It was seen in Chapter VIII that, wherever national accounts specify different types of property income going to households, the most significant decline is found in rents. Unless the distribution of rent in incomes of different sizes was significantly different in pre-war years from that shown in Table 4, the general decline in rental incomes would hardly be a very important factor explaining the reduction in the share of before-tax income at the disposal of the upper five per cent of income receivers. The same probably holds good for interest payments. Available statistics do not distinguish interest from dividends in different size groups of total income, but it seems reasonable to assume that interest payments alone would be less concentrated in top ranges than are dividends.[19]

So far as dividends are concerned, however, it is undoubtedly true that a reduction in the importance of this type of income must have worsened the relative position of the top income ranges. The proportion of profit distributed as dividends has in recent years (and particularly in the earlier post-war years) been much lower than in the late inter-war period in most countries, and corporate savings have generally increased substantially more than has national income.[20] If account were taken of retained company profits the deterioration in the relative position of the top income groups would be much less marked. Estimates made for the United Kingdom [21] indicate that the loss between 1938 and 1947 in the share of total pre-tax income held by the top five per cent of income recipients is reduced by one-half when undistributed profits are imputed to shareholders. It is unlikely that the effect of such an adjustment would be of the same order in the other four countries considered here. Dividends are a less important source of income in top income ranges, and the decline since before the war in the proportion of profits distributed as dividends appears to have been more moderate in these countries than in the United Kingdom—factors which may partly explain why the top income ranges have fared better in these countries than in the United Kingdom. Sweden is an exception to this; the deterioration in the relative position of top income-groups there appears to have been even more pronounced than in the United Kingdom.

Little is known statistically about the extent to which the decline in the upper group shares may reflect a more widespread tendency towards tax avoidance and tax evasion. The high taxation of income in post-war years has certainly increased the inducement to withhold income from assessment, whether this takes the form of fraudulent under-reporting on the part of the taxpayer, of large expense accounts and compensations in kind to business executives, or of transfers of income-earning assets to other members of the family

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income tax (excluding income assessed for the wage tax) was nearly 10 times the 1950 level in 1938. The western German figures are not only very low in general when compared to the situation in pre-war years, but the distribution by ranges may also not be a reliable guide to the situation in more normal years.

[19] The Swedish figures for dividends only in Table 4 confirm this; it is seen that property incomes other than rent and dividends are relatively much less important in high than in low income ranges.

[20] See the SURVEY for 1955, page 95, and Chapter VIII of this SURVEY.

[21] Dudley Seers, *The Levelling of Incomes since 1938.*

with a view to a more favourable tax treatment.[22] The incentive and opportunities for under-reporting are certainly more important in top income groups than in other ranges; but income is withheld from assessment also in the other ranges. There is no evidence that the tendency towards under-reporting has increased more in top ranges than among farmers, traders and other self-employed persons with more modest incomes, and it seems improbable that the improvement in the efficiency of assessment since before the war should have affected top income groups less than other income ranges. However, the compulsory registration of bank deposits, bonds and shares and the special declaration of property imposed in many countries immediately after the war seems to have made possible a more complete assessment of property incomes, particularly in income ranges below the top of the scale.[23]

Expense accounts, payments in kind and pension arrangements may have grown faster than income since before the war, as their attractiveness has increased with the increased burden of taxation, particularly at high income levels; and this may account for some of the fall in the share of the top income groups in before-tax, and of course still more in after-tax distributions. The transfer of income-earning assets to other members of the family under the impact of high income taxes and steeper death duties may have further contributed to the thinning of the ranks of the upper percentile groups. In countries where capital gains are not taxable it may also pay to incur current losses on some activities to be offset against income from other sources in the expectation of future capital gains. None of these factors is statistically measurable, but their joint contribution—together with the practice of retaining a greater proportion of profits and the control of rents in some countries—may explain part of the sharp decline in the income share of the higher income brackets.

Demographic and Economic Influences on Income Distribution

While it is known that the level of a person's income depends on a complex of widely different factors such as his age, sex, education, occupation, industrial attachment, place of residence and the like, it is clearly not possible to isolate and measure the relative importance of each of these factors in determining the level of his income. Nor can the inequality found in an over-all distribution be split into component parts attributable to specific demographic, social or economic factors, or the extent to which a change in any one of these factors has contributed to the shift towards or away from greater equality be quantitatively determined. An analysis of this type would require extremely detailed statistics on income by size, permitting the over-all distribution to be divided up into distributions for groups classified by age, sex, occupation, etc. In order to bring out the effect of a shift it would be necessary to establish distributions eliminating all factors other than the variable considered. Thus a shift in industrial attachment would be studied on the basis of size distributions relating not to the income of all persons in the industries considered but to persons of a given age, sex, marital status, occupation, with a certain level of education and experience, living in an urban or rural area of a certain size.[24] The published statistical material is in no way detailed enough to permit an analysis along these lines. In fact, all that can be attempted here is to consider some of the main changes which have taken place in the demographic, social and economic characteristics of western European societies since the pre-war period and to suggest in broad terms the direction of the changes they may be expected to have produced in the over-all distribution of income.

Official data on income distribution within socio-economic groups have been brought together and utilized to indicate the relation between income, on the one hand, and age, occupation, etc., on the other. These data relate to the Netherlands, Sweden and Denmark, and it is only for Denmark that they go back to the pre-war period. They are all derived from non-adjusted tax records and suffer from the shortcomings mentioned above, which are often more serious in the partial distributions than in the over-all distributions. Thus, in the case of the Netherlands and Denmark, where the income unit consists of jointly assessed couples and single persons, the total of earnings of a married couple are attributed to that industry and occupation from which the husband derives the major share of his income. The Swedish partial distributions, however, consider married women's earnings separately from those of their husbands.

The great bulk of income earners is accounted for by economically active persons, and attention will therefore be turned first to the changes which have taken place in the size and composition of the labour

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[22] The latter may be a factor of some importance in explaining the big reduction (15 per cent) of the income share of the top five percentile groups in Sweden between 1948 and 1954. The raising of the tax-free allowance in property taxation from 20 to 50 thousand kronor over this period appears to have encouraged a not inconsiderable spreading of assets.

[23] Thus, for instance, in Denmark such a special declaration was imposed in the summer of 1945. The number of persons reporting net worth increased by nearly two-thirds between 1944 and 1946 and, over the same period, the share of total net worth held by the top four percentile groups fell from 64 to 53. Cadastral values of land and buildings were revised in 1945, but it is believed that this revision has had only limited influence on the distribution of personal wealth (see K. Bjerke, *Changes in the Danish Income Distribution* 1939–52, pp. 56–58).

[24] For studies of such factors see *Studies in Income and Wealth*, Vol. XIII, and the results of sample surveys in the United Kingdom in the *Bulletin of the Oxford University Institute of Statistics*, Vol. XV.

TABLE 5

Changes in the composition of populations

Percentages

Country	Year	Active population as a percentage of total population	Population aged		Married women below 65 as a percentage of total women aged 15–65
			0–15	65 and over	
			as a percentage of total population		
United Kingdom	1939	48 [a]	21.5	8.9	54.8 [b]
	1956	48 [a]	23.1	11.4	65.6 [c]
Western Germany	1939	50	23.7	7.3	60,7
	1950	46	23.6	9.3	58.7
Netherlands	1938	41	28.5	6.8	55.7
	1955	42	30.0	8.4	64.3
Denmark	1940	51	24.0	7.8	58.9
	1950	48	26.3	9.1	65.1
Sweden	1940	47	20.4	9.4	53.3
	1950	44	23.4	10.2	63.7

Sources : See Appendix B.

[a] The data relate to Great Britain; the pre-war year shown is 1938.

[b] 1931.

[c] 1951.

force. These shifts are common to most western European countries, although they vary in intensity from one country to the other. Thus, demographic developments (the ageing of populations and increasing marriage and birth rates) have tended to reduce the share of the total population engaged in economic activity. On the other hand, the progress made towards full employment has raised the proportion of economically active persons in employment. The occupational and industrial shifts which have taken place within the labour force have already been described in Chapters VII and VIII; the most common being the shift away from agriculture and domestic services into manufacturing industry, trade, public services and other service trades.

The figures in Table 5 show that the increase in the number of economically active persons between pre-war and post-war census years has in most countries been proportionately smaller than the increase in the total population. This is mainly due to the relative decline of the population in the age groups which supply the large bulk of the labour force (15 to 65 years). Furthermore, the lengthening of the period of education both at the primary and at the secondary stage, and the extension of public and private schemes providing for old age have tended to reduce activity rates at both ends of the working life. The increase in marriage frequency and the relative decline in the number of single women have been only partly offset by the higher activity rates of married women which can be observed in most countries.

Income of inactive people—a very heterogeneous group—is generally lower and more unequally distributed than income of economically active persons (see Table 8). At first sight, therefore, it seems that a relative decline in the active labour force would tend to increase inequality in the distribution of income. However, if one considers more closely the impact of these demographic changes, this appears not to be the case. The relative decline in juvenile employment has undoubtedly had an equalizing effect, since it has reduced the weight of the bottom income ranges. Available statistics do not distinguish the age groups which have been most affected (probably those below 16 years of age), but the predominance of very low incomes in the age-income distributions of persons up to 21 years is clear. Thus, in Denmark in 1939 and in the Netherlands in 1950, fully 80 per cent and 95 per cent of persons below 18 and 21 respectively had incomes falling within the lower three decile groups of the over-all distributions.

The shift from single to married women in the labour force is also a factor that may have contributed to the greater equality found in the over-all distributions.

TABLE 6

Data indicating the effect of married women's income on the distribution of income in Sweden in 1954

	Income ranges *(thousands of kronor)*													
	Below 2	2–3	3–4	4–5	5–6	6–7	7–8	8–9	9–10	10–12	12–15	15–20	20 and over	Total
Men having wives reporting separate income, as a percentage of total married men	71	45	25	23	25	27	33	37	37	37	34	30	30	34
Wife's income as percentage of husband's income, by ranges of husband's income	333	126	94	75	64	52	45	42	38	34	29	26	16	36
Percentage distribution of married women by income ranges	39	13	9	8	7	7	5	3	2	3	2	1	1	100
Percentage distribution of married men by income ranges	2	3	4	4	5	6	9	12	12	18	12	7	6	100
Percentage distribution of jointly assessed couple, by ranges of their individual incomes	23	8	6	5	5	6	7	8	8	11	7	3	3	100
Percentage distribution of jointly assessed couple, by ranges of their joint income	1	1	2	3	2	3	4	5	7	16	23	21	12	100

Source : Tax Assessments and the Distribution of Income and Property, Assessment Year 1955, Stockholm, 1956.

The tendency of married women to take paid employment is particularly widespread where the income of the head of the family is low, and distributions which consider the joint earnings of married couples as one income would therefore tend to become less dispersed as the proportion of married women rises, since this reduces the relative importance of very low income ranges and, in general, raises other below-average incomes. The opposite effect could be expected in distributions classifying married women's earnings separately, such as the partial distributions for Sweden.

The importance of this factor should not, however, be exaggerated. The only country for which it is possible to study the effect of married women's earnings separately is Sweden, and here the degree of inequality in the over-all distribution classifying married women's earnings separately is found to be practically the same as the inequality contained in a distribution with joint classification (the coefficients being 0.384 and 0.376 respectively). It will be seen from the second row of Table 6, relating to Sweden, that the tendency of wives to take paid employment is particularly high in the two lowest ranges of married men's income. There is a sharp decline in this tendency as one goes from very low income ranges into ranges where young households predominate, and where married women leave the labour force because of increased family responsibilities. There may be a return of married women to the labour market as one goes a certain distance up the scale of married men's income—and hence perhaps of their average age. The fact that the number of married female income recipients is rather important in fairly high income groups (from 8,000 to 15,000 kronor corresponding to the 6 to 9 deciles in the over-all distribution) is partly explained by the fact that married men predominate in these ranges, and partly by the separate recording of income from property of women married to men in the higher income groups. This may outweigh the equalizing effect at the lower end of the scale, where the tendency of women to take paid employment is more widespread and their contribution to the family income is more important, but where the number of married men is relatively smaller.

In a distribution with joint classification, the incomes of married men are generally higher and more equally distributed than those of unmarried men—a result both of the wife's earnings and of the higher age of married men.

The non-linear association of age with income is well known and is illustrated in Table 7 for male income recipients in Sweden and the Netherlands. Average incomes rise sharply at first, more slowly later, up to the age of 40 or 50, and then begin to decline being somewhat below the average in the groups of retirement age.

While there is little clear evidence that people tend to retire earlier today than in the late pre-war period, the process of ageing has increased the relative weight of the retired population. Available statistics—none referring to a pre-war year—are a particularly poor guide to the income distribution of the retired population, since they ignore rentiers and pensioners with very low incomes. Distributions for retired persons, nevertheless, show clearly the predominance of low

TABLE 7

Average income of men in different age groups [a]

Indices—Average income of all men = 100

Sweden 1951		Netherlands 1950	
Age-group	Average income	Age-group	Average income
Below 17	29	Below 21	26
17–25	66	21–25	52
26–30	96	26–29	82
31–35	113	30–39	109
36–40	115	40–49	134
41–45	120	50–59 . . .	136
46–50	120	60–64	124
51–55	116	65–69	106
56–60	115	70–79	89
61–67	115	80 and above . .	74
68 and above . .	72		

Sources : **Sweden :** *Census of the Population in 1950,* VII, Stockholm, 1956; **Netherlands :** *Inkomensverdeling 1950,* Utrecht, 1954.

[a] The data are based on joint classification of married couple's income.

incomes and a greater dispersion than in the distributions both for active persons in general and for non-retired persons in corresponding age groups.[25] The prevalence of pensions, interest and similar kinds of fixed incomes would—in a period when the price level rose steeply—certainly have caused a deterioration in the position of the retired population were it not for the extension of social security programmes providing for old age and the rapid spreading of pension systems in the private sector. Both these developments must have improved the position of this group and reduced income differentials within it. The reflection of this development in the statistical distributions is not, however, clear. There may have been an apparent increase in inequality to the extent that higher transfer payments have raised the income of elderly persons sufficiently to bring them into the statistics, where they would increase the weight of very low income ranges.

While it is difficult to be precise about the combined effect on the over-all distribution of income of the demographic changes considered above, it would seem that they tend, on balance, to reduce rather than to increase the degree of inequality in the type of distributions under consideration. Moreover, the implication of changes in the relative share of the labour force in the total population has probably been of secondary importance as compared with the effects of changes in the proportion of the labour force engaged in full-time activity. The change from a situation of considerable unemployment before the war to one of full employment must be regarded as an important—though not statistically measurable [26]—factor in explaining the tendency towards a more equal distribution of before-tax incomes since the pre-war period.[27]

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[25] This is illustrated by the following data relating to after-tax incomes in Denmark in 1939:

	Inequality coefficient	*Average income (Thousand kr.)*
Non-active persons aged 60 and over. . .	.57	1.5
All persons aged 60 and over	.51	2.2
Total income recipients, all age groups . .	.47	2.3

[26] On the whole, the coverage of the data in respect of the income of unemployed appears to be fairly complete. Even where a reduction in unemployment would increase the coverage, however, one would expect an equalizing effect, as the relative importance of mass incomes would increase. Where full account is taken of the unemployed there would be the additional effect of a decline in the importance of very low incomes.

[27] One can hardly talk of full employment in western Germany in 1950, and there was some unemployment in Denmark in 1952; but, at least in the latter country, the employment situation was more favourable than in the pre-war year considered in the distributions. Unemployment in Denmark fell from 12.5 per cent in 1952 to 9.2 and 8.0 per cent in 1953 and 1954, but the over-all distribution of income after tax is practically identical for the three years (a before-tax distribution is not available for 1953 and 1954).

3. DISTRIBUTIONS OF INCOMES BY INDUSTRIAL SECTOR AND BY OCCUPATIONAL STATUS

Apart from demographic factors, changes in the economic and social structure of an economy are bound to influence the size distribution of incomes. The previous two chapters analysed some of the changes in the composition of industrial output and in factor shares. But the income originating in an industry, or the share of a sector's income accruing to factors of production, is not uniquely related to the personal income received by people attached to that sector. A person may receive income from activities in different sectors or combine different factor functions (e.g., paid employment and ownership of assets). The distribution of income generated in industry or accruing in the form of factor payments is, therefore, not the same as the distribution of personal incomes of people attached to an industry or representing one specific factor of production (e.g., an occupational skill).

Although the statistical data are far from being detailed enough to permit a serious analysis of the implications of industrial and occupational changes, it is nevertheless of interest to see how the distribution of income varies with the industrial attachment and occupation of the recipient, to examine whether recent changes have been towards greater equality in the income distribution within these groups, and

TABLE 8

Coefficients of inequality and average income in partial distribution

	COEFFICIENTS OF INEQUALITY							AVERAGE INCOME (*average income for all recipients = 100*)						
	Netherlands		Denmark [a]			Sweden		Netherlands		Denmark			Sweden	
	1946 [b]	1950 [b]	1939	1948	1953	1945	1954	1946	1950 [b]	1939	1948	1953	1945	1954
Agriculture	.48	.44	.31	.30	.34	.35	.36	107	115	75	88	98	81	83
Wage and salary earners	..	..	.22	.26	.28	.31	.34	..	..	56	73	71	65	68
Self-employed	..	..	.33	.32	.32	.36	.34	..	..	91	104	124	96	98
Manufacturing [c]	.47	.43	.39	.34	.33	.32	.33	87	90	119	125	123	111	114
Wage and salary earners	..	..	.37	.31	.32	.30	.31	..	..	113	117	117	110	113
Self-employed	..	..	.48	.44	.39	.47	.41	..	..	156	174	165	125	128
Trade	.53	.52	.51	.44	.40	.45	.44	129	125	155	149	141	131	104
Wage and salary earners	..	..	.41	.38	.38	.43	.42	..	..	111	117	116	118	94
Self-employed	..	..	.55	.45	.41	.48	.42	..	..	212	190	175	188	160
Liberal professions	.52 [d]	.47 [d]	.61	.56	.55	.56	.56	104 [d]	115 [d]	189	150	146	202	194
Other	.48	.43	.53	.46	.46	.49	.44	97	90	87	82	81	88	89
Total wage earners [e]	..	.37	.38	.35	.38	.36	.36	..	79	77	85	85	107	104
Males	..	..	.37	.33	.34	.36	.29	..	..	90	98	97	119	126
Females	..	..	.31	.31	.32	.32	.38	..	..	46	50	46	73	64
Total salary earners [e]	..	.54	.40	.36	.34	..	..	..	211	174	149	151	..	..
Males	..	..	.40	.34	.33	..	..	..	..	199	168	168	..	..
Females	..	..	.34	.27	.28	..	..	..	..	101	96	98	..	..
Total self-employed	..	.45	.48	.44	.40	.44	.40	..	170	133	135	141	119	119
Males	..	..	.48	.42	.39	.43	.38	..	..	136	141	147	123	125
Females	..	..	.46	.47	.47	.51	.47	..	..	79	81	80	93	81
Total non-active	..	.50	.53	.41	.36	.52	.46	..	76	65	53	55	55	56
Males	..	..	.53	.38	.34	.49	.43	..	..	70	58	58	82	71
Females	..	..	.53	.42	.38	.51	.46	..	..	61	48	51	44	45
Total males	..	.42	.46	.39	.39	.38	.33	..	113	116	116	115	117	120
Total females	..	.44	.40	.38	.39	.43	.41	..	52	58	57	56	63	61
Total recipients	.50	.44	.47	.42	.40	.42	.38	100	100	100	100	100	100	100

Sources : See Appendix B.

[a] The data relate to income after tax. Administrative, technical and clerical personnel are not allocated to the industrial sectors, but included under the group "other".

[b] The details by occupational status relate to 1952. Salary earners include company directors and persons in public services only; other salary earners are included with wage earners.

[c] Includes building for Sweden.

[d] Includes public services and miscellaneous services. For liberal professions proper the coefficient of inequality in 1952 is .52 and the index of average income 297.

[e] Salary earners are included with wage earners in Sweden.

whether industrial and occupational changes have influenced the degree of inequality in the over-all distribution.

Coefficients of inequality have been calculated for the four industrial sectors which it is possible to distinguish—namely, agriculture (including fishing, hunting, etc.), manufacturing, trade and the liberal professions, in three countries (Denmark, Sweden and the Netherlands). Wage and salary earners, self-employed and non-active persons have been shown separately wherever possible. The results are given in Table 8, which also indicates the level of average income per recipient in each group. As mentioned in Appendix B, the Dutch and Swedish distributions cover all persons engaged in the industries distinguished, whereas the Danish data for agriculture, manufacturing, trade and liberal professions exclude technical, administrative and office personnel. These, which in the basic statistics are given as a separate group without details of industrial attachment, have been included under " other industries " in the tables. In interpreting the Danish data, it should be kept in mind that they relate to incomes after tax. The distributions for the three countries are therefore not strictly comparable.

The pattern of distribution varies considerably from one industry and occupation to another. In all the three countries shown, income of persons engaged in agriculture and manufacturing is much more equally distributed than income of persons in trade and the liberal professions, the difference being particularly marked in the two Scandinavian countries, where, in post-war years, inequality coefficients for the liberal professions are two-thirds higher than those obtained for manufacturing. The differences between occupational groups are less striking, although in all three countries income of wage and salary earners is clearly more evenly distributed than that of the self-employed, and generally also more evenly than that of non-active persons. The more unequal distribution of self-employed persons' income is also apparent in the industrial sectors shown for Denmark. In Sweden, however, this is true only of manufacturing industry ; in agriculture and trade wage and salary incomes are just as unevenly distributed as those of self-employed persons.

The coefficients indicate that the tendency has on the whole been towards a levelling of incomes in the Netherlands and Denmark, particularly so in the latter country where the period considered is longer, and the data relate, it must be remembered, to after-tax incomes. In Sweden the situation has not changed much in the four industrial sectors shown, but in each sector there has been some levelling in self-employed persons' incomes. No such tendency is apparent for wage and salary earners in Sweden, and in Denmark the movement towards greater equality has been on a much smaller scale for this group than for self-employed persons. In both countries income differentials among agricultural workers appear to have increased over the periods studied.

The movement towards greater equality is more clearly seen when occupational groups are distinguished by sex. It is only in the case of female wage and salary earners in Sweden that income differentials have increased. Women's income is clearly more unequally distributed than men's income in Sweden, while in Denmark and the Netherlands —where married women's earnings are joined with those of their husbands—there is little difference except in the case of self-employed persons in Denmark.

It goes without saying that the coefficients shown in Table 8 in no way indicate anything about the relative level of incomes or changes in this level. It can be seen from the second part of the table that income per head varies substantially between groups having the same inequality coefficient, such as agriculture and manufacturing in Denmark and the Netherlands, and employed and self-employed persons in trade in Sweden. In every sector the level of income of wage and salary earners is below that of self-employed persons, and this difference is substantially bigger in Denmark[28] and the Netherlands than in Sweden. Income of women is everywhere considerably below that of men, and except in the Netherlands non-active persons have relatively very low incomes.

In all the three countries the level of income in agriculture and manufacturing has increased relatively to total income, while trade and—in the Scandinavian countries liberal professions—have lagged behind. In the Netherlands, persons in liberal professions and public and miscellaneous services have seen an inprovement in their income between 1946 and 1950 which is bigger than that recorded in either agriculture or manufacturing. Except in agriculture the position of employed persons in Denmark has improved since before the war in relation to the self-employed. Wage and salary earners in Sweden do not appear to have benefited more from the post-war improvement in incomes than have the self-employed. In both countries income differentials between men and women have tended to widen rather than to narrow over the periods studied. The relative income levels of non-active persons appear to have deteriorated in both Sweden and Denmark.[29]

The Interrelation of Partial and Over-all Distributions

This analysis has so far shown how income is distributed with varying degrees of inequality within groups of persons belonging to different industries and occupations ; and it has also shown that within most of these groups income differentials have tended to decline, or at least not to increase, over the periods considered. The manner in which these changes between and within groups are reflected in the over-all distribution is suggested by the data given in Tables 9 and 10.

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[28] If technical, administrative and office personnel could be included under their respective industries in Denmark, the difference between the average income of wage and salary earners and self-employed persons would be smaller, particularly in the case of manufacturing.

[29] The comparability of the Swedish data relating to non-active persons is probably not very good; the coverage in respect of non-active persons, and particularly women, appears to be much fuller in 1945 than in 1954, and to that extent the figures in Table 8 exaggerate the improvement in per capita income for the group as a whole.

TABLE 9

Percentage distribution of income recipients in each decile group according to the recipient's branch of activity

	Total	Decile group									
		I	II	III	IV	V	VI	VII	VIII	IX	X
Netherlands											
1946: Agriculture	14.3	13			16	15	16	11	12	16	19
Manufacturing	27.8	30			31	29	28	31	30	21	16
Trade	11.5	10			11	11	10	11	11	14	18
Liberal professions [a]	12.9	12			12	12	11	12	14	16	14
Other	33.5	35			30	33	35	35	33	33	33
1950: Agriculture	12.0	8		11		13		11	10	13	20
Manufacturing	31.4	35		30		34		36	37	27	18
Trade	12.0	11		11		11		10	11	13	19
Liberal professions [a]	10.2	8		10		8		8	10	17	14
Other	34.4	38		38		34		35	32	30	29
Denmark [b]											
1939: Agriculture	23.5	9	12	27	49	48	32	25	16	11	7
Manufacturing	23.0	15	9	13	16	16	26	36	38	40	24
Trade	7.9	5	3	4	6	7	9	9	10	10	16
Liberal professions	2.9	5	1	1	1	1	2	2	2	3	8
Other	42.7	66	75	55	28	28	31	28	34	36	45
1953: Agriculture	19.7	8	11	16	27	36	28	22	18	18	13
Manufacturing	22.2	8	7	10	15	22	29	35	38	34	24
Trade	7.3	3	3	4	6	7	8	8	8	8	18
Liberal professions	3.4	8	2	2	2	2	2	2	2	2	10
Other	47.4	73	77	68	50	33	33	33	34	38	35
Sweden											
1945: Agriculture	19.4	12	26	28	28	27	23	17	12	11	10
Manufacturing and building	32.6	10	15	22	30	39	40	47	48	46	32
Trade	12.2	5	9	12	13	12	12	12	12	13	22
Liberal professions	.54	.32	.36	.42	.49	.48	.46	.47	.38	.42	1.62
Other	35.2	73	50	38	29	22	25	24	28	30	34
1954: Agriculture	15.8	12	19	22	24	22	19	13	9	9	8
Manufacturing and building	35.0	19	18	24	30	34	39	45	51	51	39
Trade	15.6	17	14	17	18	19	16	13	12	12	19
Liberal professions	.40	.39	.31	.35	.36	.30	.25	.20	.20	.23	1.41
Other	33.2	52	49	37	28	25	26	29	28	28	33

Sources : See Appendix B.

NOTE. — The table should be read as follows: Denmark 1939—of the total number of income recipients 23.5 per cent were engaged in agriculture. Of the poorest 10 per cent of the total population 9 per cent were in agriculture, 15 per cent in manufacturing, etc.

[a] Includes public services and miscellaneous services.

[b] Data relate to income after tax. Persons in administrative, technical and clerical positions are not allocated to the industrial sectors, but included under the group " other industries ".

The proportion of agricultural income recipients in very low income ranges is relatively unimportant ; its importance increases sharply in the middle decile groups, and there is a marked decline as one gets to the top ranges (except in the Netherlands, where persons in agriculture are strongly represented in the upper decile groups). The distribution of income recipients in manufacturing follows a similar pattern, except that the income ranges where recipients are most heavily concentrated are higher than in the case of agriculture. For the trade sector all the six distributions have this in common—that a relatively large number of incomes are found in the tenth decile group. Otherwise the pattern varies : in Denmark there is a fairly continuous increase in the importance of recipients as one goes up the income scale, in Sweden, income recipients are fairly evenly distributed from the third to the ninth decile, while in the Netherlands the distribution appears to be very even over most of the income range.[30] The number of income recipients

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[30] The fact that most of the Dutch distributions appear to be very even in lower income ranges is, of course, partly due to the fact that a detailed distribution cannot be constructed for these ranges.

TABLE 10

Percentage distribution of income recipients in each decile group according to the recipient's occupational status

	Total	Decile group									
		I	II	III	IV	V	VI	VII	VIII	IX	X
Netherlands											
1952: Wage earners	68.0	76		70	72	73	74	77	70	59	31
Salary earners [a]	3.4	1		1	2	2	3	3.5	5	6	9
Self-employed	18.6	5		12	14	16	17	15	20	30	53.5
Non-active	10.0	18		17	12	9	6	4.5	5	5	6.5
Denmark [b]											
1939: Wage earners	49.6	44.5	54	65.5	65	58	47	44.5	48	46	22
Salary earners	11.4	3.5	3.5	3.5	4	5	9	13	15	23	34
Self-employed	25.0	16	11	14	21	28	35	34.5	30	26.5	37
Non-active	14.0	36	31.5	17	10	9	9	8	7	4.5	7
1953: Wage earners	46.9	53.5	51	46	54	52.5	36	61	47.5	39	27
Salary earners	13.8	3.5	3	4	7	9	17	15	21.5	23	33
Self-employed	22.0	15	6	7	14	25	34	20	27.5	34.5	38
Non-active	17.3	28	40	43	25	13.5	13	4	3.5	3.5	2
Sweden											
1945: Wage and salary earners	66.6	28	51	62	69	73	75	79	81	79	68
Self-employed	16.4	8	13	17	18	19	18	16	14	16	25
Non-active	17.0	64	36	21	13	8	7	5	5	5	7
1954: Wage and salary earners	73.7	62	57	66	70	75	79	84	86	83	73
Self-employed	13.9	6	9	14	18	18	15	13	11	14	22
Non-active	12.4	32	34	20	12	7	6	3	3	3	5

Sources: See Appendix B.

NOTE. — For interpretation of this table, see note to Table 9.

[a] Includes company directors and persons in government services only; other salary earners are with wage earners.

[b] Data relate to income after tax.

in liberal professions is relatively important in the ninth or tenth decile group in all the six distributions shown in Table 9. The heavy weight of income recipients in the bottom decile group in Denmark is due to the inclusion under liberal professions of students with income largely from part-time employment. The percentage of income recipients in the sector " miscellaneous industries " is very high in low income ranges in Denmark and Sweden ; their numbers decline up to the fourth or fifth decile group and remain fairly stable from there onwards. In the Netherlands, the distribution of income recipients in " other industries " corresponds closely to that of income recipients in the over-all distributions in both the years considered.

Among the distributions by occupation shown in Table 10, the most uneven are seen to be those for non-active persons, where there is invariably a heavy concentration of income recipients in very low ranges and a sharp decline as one goes up the income scale. Incomes of salary earners are also very unequally distributed in the Netherlands (but the group includes company directors and civil servants only) and in Denmark ; there is a sharp and practically uninterrupted increase in their relative importance as one goes up the income scale. Except in the Netherlands, the increase is less pronounced and continuous in the case of self-employed persons, where there is some tendency for income recipients to concentrate in the middle decile groups, particularly in Sweden. It is only in the Netherlands that there is a clear concentration of self-employed persons in top ranges (45 per cent are found in the two upper decile groups). Wage earners are distributed fairly evenly over most of the income range ; there is a decline in their relative importance only in the two top decile groups. This decline is less pronounced in the Swedish distributions which include salary earners together with wage earners.

This pattern of decile distributions has, by and large, remained stable over the periods studied, both for occupational groups and for industrial sectors. The main exceptions to this are the liberal professions and the trade sector in Sweden, where income recipients at the lower end of the scale increased in relative importance while those in the upper income ranges declined equally sharply. A similar though less marked

TABLE 11

Income transfers required to obtain equal distribution of income

	Within sectors *(percentages)*						Between sectors *(percentages)*					
	Netherlands		Denmark [a]		Sweden		Netherlands		Denmark [a]		Sweden	
	1946	1950 [b]	1939	1953	1945	1954	1946	1950 [b]	1939	1953	1945	1954
Transfer as a percentage of the sector's income												
Agriculture	34	31	22	24	25	26	−6	−13	34	2	23	20
Manufacturing [c]	33	29	27	23	22	23	15	11	−16	−19	−10	−12
Trade	38	37	36	29	32	30	−22	−20	−35	−29	−24	−4
Liberal professions	37	33	44	40	43	42	−3	−13	−47	−32	−50	−49
Other	34	30	39	34	35	32	3	11	14	24	14	12
Wage earners	..	26	28	27	25	25	..	27	31	18	−6	—
Salary earners	..	41	28	24			..	−53	−43	−33		
Self-employed	..	32	35	28	31	28	..	−41	−24	−28	−16	−16
Non-active persons	..	36	39	25	38	33	..	31	55	83	82	80
Transfer as a percentage of total income												
Agriculture	5.2	4.2	3.8	4.7	3.9	3.4	−1.0	−1.8	5.8	0.4	3.7	2.6
Manufacturing [c]	7.9	8.2	7.3	6.3	7.8	9.1	3.7	3.0	−4.4	−5.1	−3.7	−4.9
Trade	5.6	5.5	4.3	2.9	5.1	4.9	−3.3	−2.9	−4.3	−3.0	−3.8	−0.7
Liberal professions	4.9	3.9	2.4	1.9	0.5	0.3	−0.4	−1.6	−2.5	−1.5	−0.5	−0.4
Other	11.1	9.2	14.6	13.1	10.9	9.3	1.0	3.3	5.4	9.2	4.3	3.4
Total	34.7	31.0	32.4	28.9	28.2	27.0	4.7	6.3	11.2	9.6	8.0	6.0
Wage earners	..	13.7	10.6	10.6	17.9	19.1	..	14.4	11.7	7.5	−4.5	−2.9
Salary earners	..	2.9	5.6	4.9			..	−3.7	−8.5	−6.8		
Self-employed	..	10.3	11.6	8.6	6.0	4.6	..	−13.1	−8.1	−8.7	−3.2	−2.6
Non-active persons	..	2.7	3.5	2.4	3.5	2.3	..	2.4	4.9	8.0	7.7	5.5
Total	..	29.6	31.3	26.5	27.4	26.0	..	16.8	16.6	15.5	7.7	5.5

Sources : See Appendix B.

[a] The data relate to income after tax. Administrative, technical and clerical personnel are not allocated to industrial sectors, but included under the group " other ".

[b] The data concerning occupational status relate to 1952. Salary earners include company directors and civil servants only. Other salary earners are included with wages earners.

[c] Includes building for Sweden.

shift has taken place in the sector " miscellaneous industries " in the Netherlands.

The figures in Tables 9 and 10 do not permit a great deal to be said about the manner in which changes in the weights of the partial distributions influence the degree of inequality in the over-all distribution. There are only two cases which can be readily determined: first, distributions where income recipients are heavily concentrated in the middle decile groups and decline in importance as one approaches either extreme of the scale; secondly, distributions where income recipients in the middle groups are relatively unimportant, their weight being concentrated at both ends of the income scale. An increase in the weight of such groups would clearly tend to reduce or to increase, as the case may be, the degree of inequality in the over-all distribution. Of the distributions shown, there are only two which closely fit this pattern—namely, agriculture and the liberal professions in Denmark.

A rough indication of the manner in which the different industrial and occupational groups contribute to the degree of inequality found in the over-all distribution can, however, be obtained from Tables 9 and 10. This can be measured in an approximate way by considering the income which would have to be transferred from high to low income ranges if a completely equal distribution were to be obtained within each sector. The maximum equalization percentages shown in the top left of Table 11 give this magnitude as a share of income held by the sector. This measure of inequality moves closely in line with the inequality coefficients shown in Table 8; trade and liberal professions require a bigger transfer than do sectors having lower inequality coefficients, such as agriculture and manufacturing, and the transfer required is more important for self-employed and non-active persons than for wage and salary earners. When these income transfers are expressed as shares of total income, however, it is seen that the groups with a relatively high degree of inequality generally contribute less to the total inequality than do groups which have a less dispersed income distribution but which account for a larger share of total income, such as agriculture, manufacturing and wage earners.

The between-sector income transfers required to obtain equal average income in all sectors are shown in the second part of Table 11. In all the three countries the transfers involve a loss of income in trade and liberal professions and in the two Scandinavian countries, in manufacturing also. The total between-sector transfer required to obtain equal average income in all sectors is relatively high in Denmark, where average income differentials between sectors are bigger than in the other two countries. The transfer needed to obtain equality between occupational groups, which involves a shift of income from self-employed and salary earners to wage earners and non-active persons, is substantially bigger than the between-industry transfer in the Netherlands and Denmark. In Sweden, where wage and salary earners are combined into one group, these transfers are of the same order. In all three countries the total of between-sector transfers is of a much smaller magnitude than the within-sector transfers, amounting generally to less than one-third of the latter except in the occupational distributions for Denmark and the Netherlands. The importance of the total transfers required to obtain equalization between and within sectors has generally diminished over the periods studied.

4. DISTRIBUTION OF INCOME AFTER TAX

Personal income is subject to taxation, and in all the countries considered here income taxation is progressive; the higher the income, the greater the proportion taken by taxes. It must therefore have an equalizing effect on the distribution of incomes.

The Changing Structure of the Tax System

The burden and structure of income tax varies between the five countries and over time and can, for the purpose of this study, be illustrated in a simple way. Chart 2 shows, for five countries, tax as a percentage of income of a married man with two dependent children at levels of income corresponding to multiples of personal income per head in 1938 and 1955. A married man with two dependent children is a fairly representative taxpayer in the countries studied, and the manner in which tax liability varies with the level of income is very similar for tax payers with different burdens of dependants, except in very low income ranges. The general level of taxation appears to have been increased less for persons with fewer dependants, but this difference is important only in low income ranges. The years chosen for showing the tax structure do not coincide in each case with those shown in the after-tax distributions, but the tax system does not seem to have changed much in the late 'thirties; in earlier post-war years, income taxation was generally somewhat heavier than in 1955.

The main changes in the tax structure, as shown by Chart 2, can be summarized as follows.

For any given multiple of income per head of the total population the post-war tax is considerably higher than the pre-war. The upward shift has been greatest in the United Kingdom and the Netherlands, and smallest in western Germany and Denmark. In the Netherlands the increase in the tax burden is heavier in the middle and top income brackets than lower down the scale, while in the United Kingdom it affects all income ranges except the extreme tips of the curve.

Post-war taxation of income starts at a smaller multiple of per head income than did pre-war taxation in the United Kingdom and the two Scandinavian countries,[31] but at a slightly higher level in western Germany. In the case of the Netherlands there has been little change.

Tax progression as measured by the slope of the curve is steeper in 1955 than in 1938. It follows that the increase in tax rate associated with a given increase in income (in terms of multiples of income per head) is generally greater after the war than it was before.

In this sense, tax progression was steepest before the war in the United Kingdom and smallest in Denmark. The angle between the pre- and the post-war curves, indicating changes in the rate of progressiveness, is greatest in the United Kingdom and the Netherlands and smallest in Denmark.

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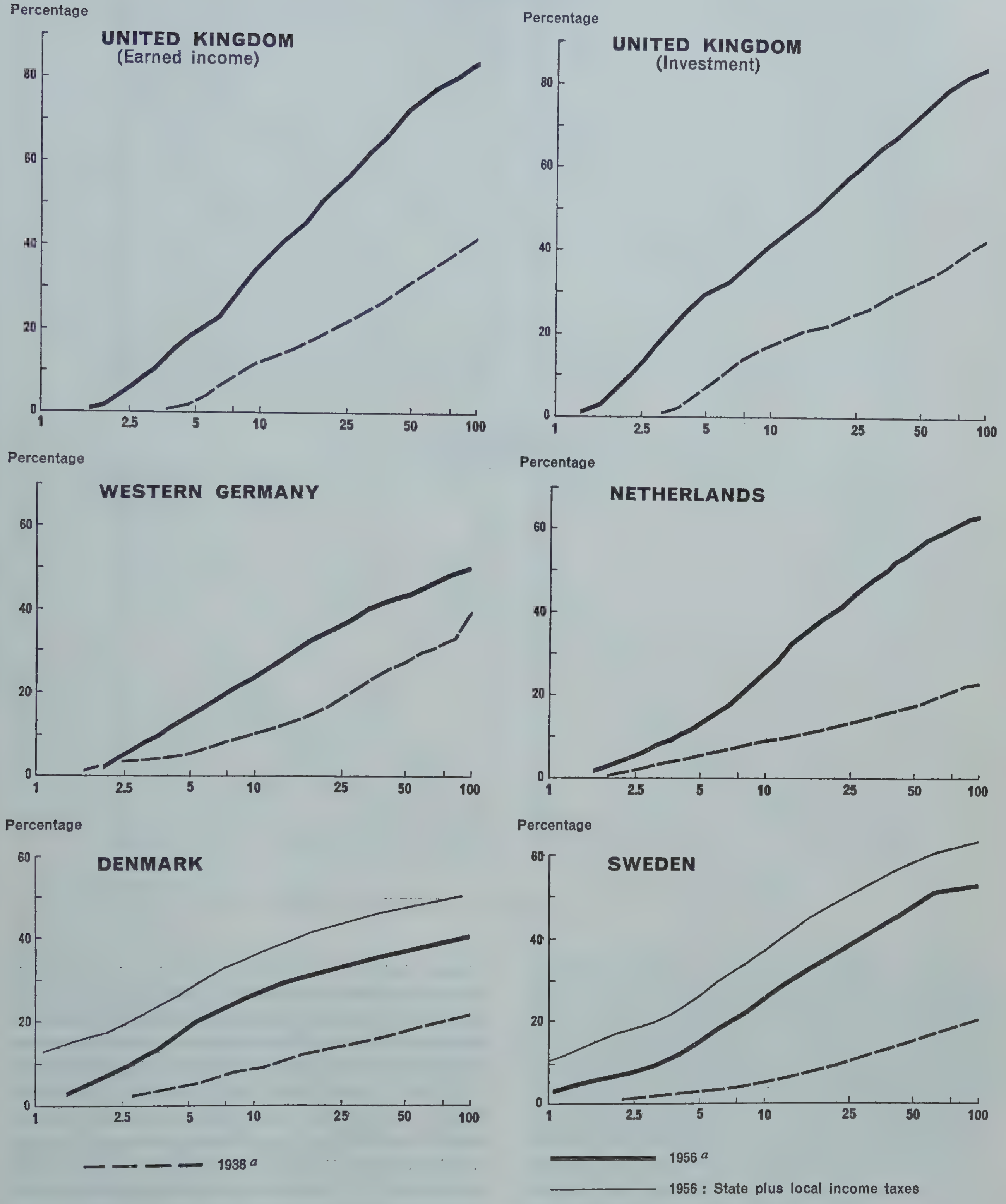
[31] The fact that income taxation in Denmark is considerably less progressive than in the other countries considered is due probably to a curious and, as it seems, unique provision in the Danish tax legislation: the rates of tax are applied to a taxable income defined as actual income *less* personal taxes actually paid. Under such a system, the effective rate of taxation is far lower than the apparent rates. For instance, an effective rate of 50 per cent requires (on the assumption of regular income from year to year) an apparent rate of 100 per cent, and rates above 100 per cent are administratively unmanageable when the taxpayer's income changes from year to year.

Chart 2

Income tax structures before and after the war

Tax rates for a married man with two children

Semi-logarithmic scale



UNITED KINGDOM (Earned income)

UNITED KINGDOM (Investment)

WESTERN GERMANY

NETHERLANDS

DENMARK

SWEDEN

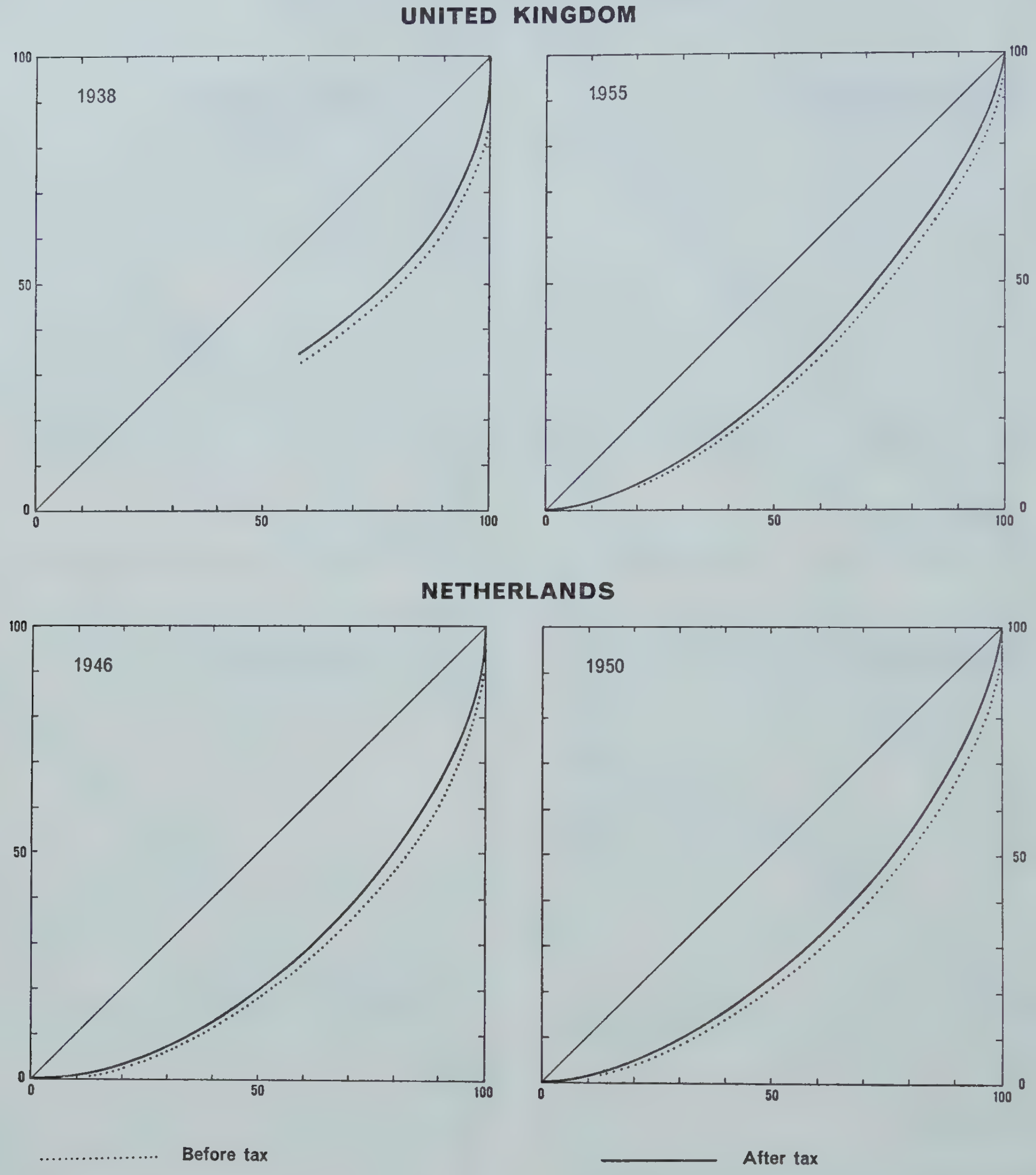
Sources : See Appendix B.

Note. — Incomes expressed as multiples of personal income per head of total population.

[a] For Denmark and Sweden only income tax paid to the central government.

CHART 3 — **Distribution**

Lorenz

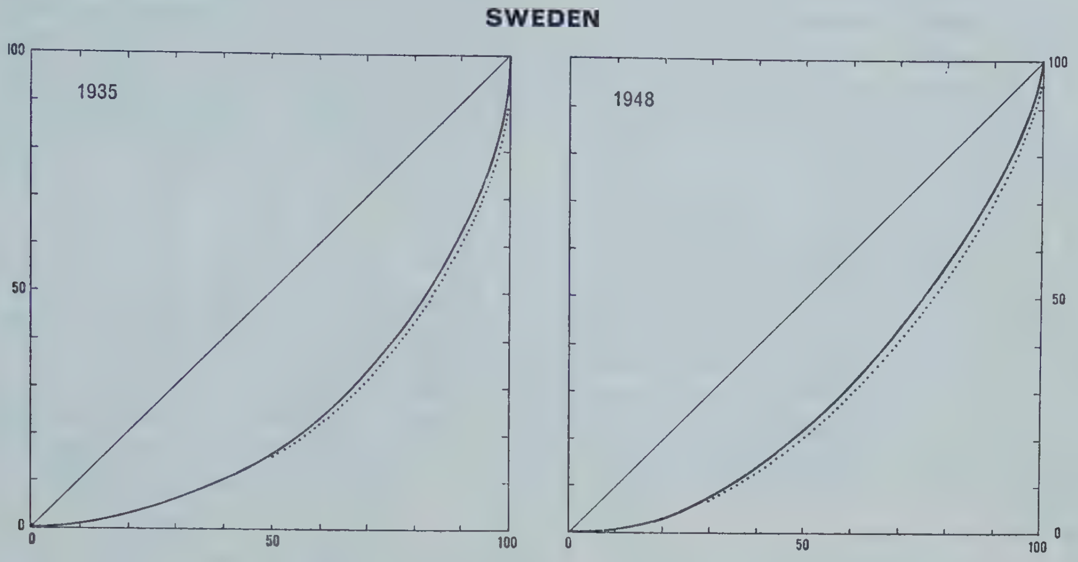


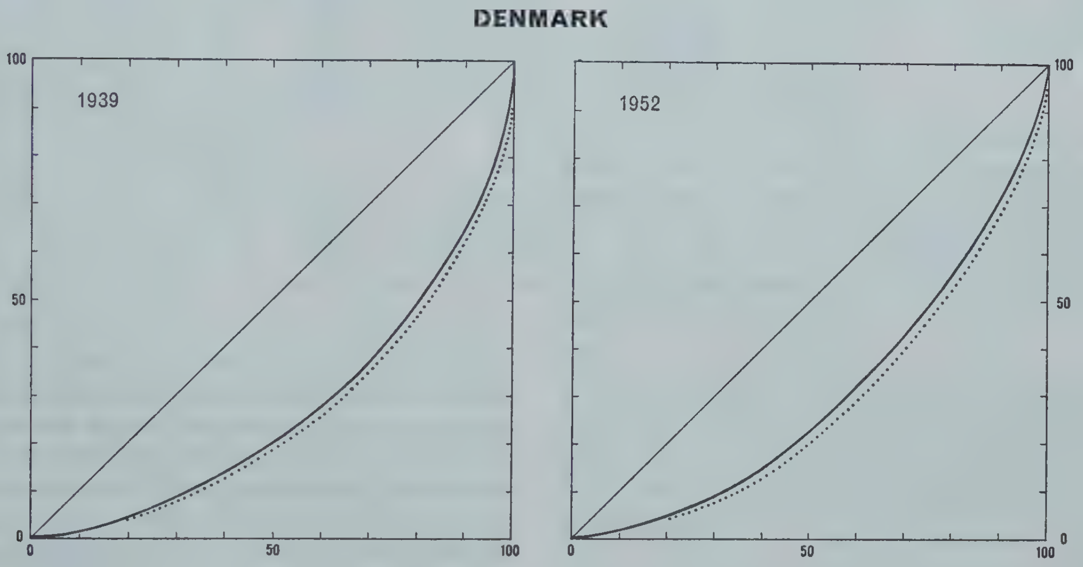
Deviations from the straight line indicate changes in progressiveness along the income scale in a given country. The British curves (except for the extreme ends of the income scale) approximate almost to a constant rate of progression, while the post-war curves for the Netherlands and Sweden show a distinctly steeper marginal rate of taxation for the middle than for the lower income ranges. By contrast the Danish post-war curve for the state income tax shows a greater progressiveness for the lower than for the upper income strata. This is less pronounced when the total of income taxes—including local taxes—is taken into account. In both the Scandinavian countries, however, income taxation at the local level starts at a lower income than does state taxation. The pre-war German tax system is the only example where the marginal rate of taxation increases noticeably more at the upper end of the income scale than in the lower and middle parts.

However, these variations in progressiveness along the income scale should not hide the fact that over the range as a whole the progressiveness of income tax has increased in all countries by comparison with the pre-war period. The heavier and more progressive structure of taxation in the post-war period is partly due to an increase in the general level of rates and a steepening of progression in tax scales relating to current money

of income before and after tax

curves





Sources: See Appendix B.

NOTE. — **Horizontally:** percentage of income recipients with an income lower than X. **Vertically:** percentage of total income received by income recipients with an income lower than X.

incomes. Moreover, the rises in prices and real incomes have shifted incomes into ranges with heavier taxation, so that the increase in the tax burden becomes even greater when the comparison is made in terms of corresponding levels of real income.

The Equalizing Effect of Income Tax

The marked changes in the level and progressiveness of taxation are not very strongly reflected in the increases of equality of post-tax distributions. These distributions, together with pre-tax data, are shown for four countries in Chart 3, and Table 12 gives the associated measures of inequality and the distributions over decile and percentile groups.

It should be noted that the Danish and Swedish distributions relate to income net of all direct taxes, while for the other two countries only direct taxes on income are considered. Except in the case of Denmark, the data have been derived from distributions over ranges of total income before tax. Since the ranges in the distributions shown are based on relative ranking, this should not introduce serious errors into size-group classifications. The marginal tax rate in

TABLE 12

Percentage distribution of total income after tax by decile and percentile groups

	United Kingdom			Netherlands		Denmark		Sweden		
	1938	1949	1955	1946	1950	1939	1952	1935	1945	1948
Decile groups:										
1	35.7	8.3	12.0	7.3	4.8	1.4	1.7	9.9	2.7	3.5
2						2.7	7.5			
3		5.0			10.4	4.4			3.7	4.4
4		13.7	23.8	20.8		18.5	5.8		5.1	6.1
5					17.0		7.5	6.0	7.2	8.0
6		32.3					9.2	7.5	8.9	9.7
7	8.0		24.8	21.9	10.5	9.3	11.0	9.5	10.9	11.5
8	22.7				12.3	12.5	29.8	13.0	13.1	13.7
9		14.0	14.9	15.5	15.0	16.2		17.2	16.5	16.1
10	33.6	26.7	24.5	34.5	30.0	35.0	27.5	36.9	31.9	27.0
Total	100	100	100	100	100	100	100	100	100	100
Percentile groups:										
90–92.5	4.2	9.0	9.0	5.5	4.9	4.9	10.0	5.3	4.9	4.7
92.5–95	4.7			5.8	5.6	6.2		6.0	5.7	5.4
95–97.5	6.7	6.0	5.5	7.7	6.5	6.7	5.8	7.4	6.9	6.3
97.5–98.75	5.0	4.0	3.9	5.7	4.5	4.7	3.7	6.0	4.7	4.0
98.75–100	13.0	7.7	6.1	9.8	8.5	12.5	8.0	12.2	9.7	6.6
Total	33.6	26.7	24.5	34.5	30.0	35.0	27.5	36.9	31.9	27.0
Inequality coefficient	.38	.34	.34	.46	.41	.47	.40	.52	.46	.41
Pre-tax coefficients [a]	*.43*	*.42*	*.41*	*.50*	*.45*	*.50*	*.44*	*.54*	*.48*	*.44*
Maximum equalization percentage	27	24	24	32	28	34	28	37	32	28
Pre-tax max. equal. percentage[a]	*30*	*28*	*27*	*35*	*31*	*36*	*31*	*38*	*33*	*31*

Sources: See Appendix B.

[a] From Table 3.

income taxation is always smaller than unity, and a change in ranking could occur only as a result of the tax burdens varying with the family status. Where all direct taxes are considered, and not income taxes alone, the changes in ranking would of course be more important.

The after-tax curves are distinctly closer to the line of equal distribution than are the before-tax curves in all the four countries. This is seen particularly clearly in the case of the United Kingdom, where, according to Table 12, the coefficients of inequality for post-war years are reduced by 15 per cent or more through taxation, while in the other countries the reduction is of the order of 7 to 9 per cent.

In spite of the tendency for before-tax incomes to become more equally distributed since before the war, the equalizing effect of income taxation has increased in three out of the four countries shown. Not only is the percentage decline in inequality coefficients for after-tax in relation to before-tax distributions greater in post-war than in pre-war, but also the absolute difference—i.e., the area between the two curves—is larger in the post-war distributions. There is reason to believe that the equalizing effect of income taxation has increased also in the Netherlands (for which no pre-war data exist), where income taxation, as shown in Chart 2, has been made more steeply progressive than in Sweden and Denmark—countries which have seen a bigger levelling of pre-tax income differentials than the Netherlands.

The equalizing effect of taxation takes the form of a steady reduction of the ratio of after-tax to before-tax incomes as one goes up the income scale. Bottom income ranges hold a larger share of total after-tax income than of before-tax income, and this gain diminishes relatively as one goes up the income scale to a point from which there is an increasing relative loss in income shares. In all the four countries shown, this point is reached only within the last decile group, as can be seen by comparing the data in Table 12 with those in Table 3. All the lower nine decile groups have their income shares increased by taxation.

The tax liability varies somewhat with the taxpayer's burden of dependants, but it is highly unlikely that this factor would upset the pattern of progressiveness, except possibly in very low income ranges. The fact that the distributions shown do not conform strictly to this pattern is therefore due to errors in interpolation. The case of Sweden in 1935 is particularly striking; it is inconceivable that the lower five decile groups should dispose of no larger share of total income after tax than of income before tax, as suggested by the figures of Tables 3 and 12, even if allowance is made for the fact that the Swedish after-tax distributions are net of all direct taxes.

Other Effects of Government Policy

Income taxation is the most progressive element in the national tax structures of the countries studied; other taxes, and in particular indirect taxes, are probably on the whole regressive or, at best, proportional. This is illustrated from the following estimates [32] of taxes as a percentage of income in selected income ranges in the United Kingdom and Sweden:

United Kingdom, 1937

Income ranges (th. £)	*Direct personal taxes*	*Indirect taxes*
Below .125	2.2	14.5
.25 – .5	5.3	14.7
1.0 – 2.0	23.0	10.8
10 and above	68.6	3.2

Sweden, 1948

Income ranges (th. kr.)		
Below 3	6.1	9.1
3 – 6	10.7	8.4
6 – 10	13.9	8.1
15 and above	32.7	5.1

If negative (subsidies) as well as positive indirect taxes are taken into account, however, a very slight progression may well be found up to fairly high income levels as shown by the following estimates for Norway.[33] They present indirect taxes paid by physical persons less consumer price subsidies as a percentage of total income in decile groups in 1950.

First decile group	—4[a]
Second ,, ,,	0
Third ,, ,,	3.2
Fourth ,, ,,	4.6
Fifth ,, ,,	6.1
Sixth ,, ,,	7.0
Seventh ,, ,,	8.0
Eighth ,, ,,	8.9
Ninth ,, ,,	9.5
Tenth ,, ,,	8.4

[a] Consumer price subsidies exceed indirect taxes by about 4 per cent of total income.

Apart from direct and indirect taxes and consumers' subsidies, payments of social benefits exercise an influence on the distribution of incomes. Such direct social transfers accrue mainly to very low income groups, and the extension of these payments should be reflected in the reduction of inequality observed in the over-all distribution of income. The statistical coverage in respect of those incomes is, however, far from complete, except in Sweden up to 1948 and possibly in the United Kingdom.[34] In any case, details on incomes in the ranges most affected are lacking. As Table 3 has shown, details are not given by size ranges for very substantial proportions of income receivers at the lower end of the scale. Such incomplete distributions cannot bring out in any clear manner the improvement which may have taken place. Estimates for Sweden indicate that the redistributive effect of direct social transfer payments was just as important in 1948, and even in the pre-war period, as the redistributive effect of total direct taxation, and this can be seen from the following inequality coefficients.[35]

	1935	*1948*
Total income less direct social transfer payments	0.57	0.48
Total income	0.52	0.44
Total income less direct taxes	0.51	0.40

The investigation covered by this chapter was confined to income distributions by recipient units as defined for tax purposes, but it must not be overlooked that the units vary in size. If income of the recipient unit were divided by the number (or perhaps the "adult equivalent") of dependants which the unit has to support, the resulting distribution might well be very different for the population as a whole, for the occupational groups, and above all, for age groups of income receivers. Payments of family allowances, differential tax treatment for families with children or private schemes of wage supplements geared to family size have become very common since the war (much more so in France than in most other countries). Their main effect has undoubtedly been to reduce, within the lower income ranges, the disparities in income per consumer unit between small and large families for income receivers of given age or level of income.[36]

Taxation and social transfer payments are only two, albeit the most important, elements of government policy affecting the size distribution of personal income. Many of the changes in the structure of income (by industry, occupation, and type of income payments) which have been mentioned above as having affected the pre-tax distribution of income are, of course, associated in a more or less narrow sense with government policy. Rent restrictions and interest policy, discriminating taxation against dividends and differential indirect taxes are obvious examples, but so also—in a more general way—are the efforts to create conditions favouring a high level of economic activity or attempts to influence the pay structure of sectors of the community. It is clearly impossible to determine in any conclusive manner the effect of a complex of policies of this type; but, by and large, the tendency may have been towards, rather than away from, a more equal distribution of income.

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[32] See T. Barna, *Redistribution of Incomes through Public Finance in 1937*, and R. Bentzel, *op. cit.*

[33] See *The Effects of the Norwegian Tax System on the Personal Income Distribution*, Statistisk Sentralbyraa, Oslo 1954.

[34] The coverage in respect of other transfers such as interest on the public debt, subsidies to agriculture and other non-corporate sectors, is more satisfactory, as these payments are less concentrated in very low income ranges.

[35] Calculated on the basis of estimates made by R. Bentzel, *op. cit.*

[36] Many of these transfer payments are, of course, included in the personal income of the recipient unit and are probably one of the equalizing factors in the statistical distributions examined in this chapter.

Appendix A

SUPPLEMENTARY STATISTICS

Table I

Balance of payments of Europe and other areas with the United States

Millions of current dollars

Item	Years and quarters	Europe			Affiliated overseas areas [a, b]	Overseas sterling area	Canada	Latin American Republics	All other countries [b]	International institutions	TOTAL WORLD
		United Kingdom Ireland Iceland	Other European countries	Total Europe							
A. Goods and services (total)	1954 I-III	+294	+83	+377	+156	−100	−585	−184	−401	−38	−775
	1955 I-III	+91	−71	+20	+181	−85	−656	−334	−303	−32	−1 209
	1956 I-III	+335	−379	−44	+131	−199	−1 064	−377	−399	−23	−1 975
Exports to the United States	1954 I-III	+378	+1 109	+1 487	+310	+773	+1 730	+2 661	+804	—	+7 765
	1955 I-III	+452	+1 274	+1 726	+307	+894	+1 961	+2 535	+977	—	+8 400
	1956 I-III	+567	+1 604	+2 171	+327	+923	+2 128	+2 918	+1 089	—	+9 556
Imports from the United States [c]	1954 I-III	−486	−1 889	−2 375	−205	−714	−2 131	−2 432	−1 393	−27	−9 277
	1955 I-III	−729	−2 401	−3 130	−194	−828	−2 437	−2 387	−1 424	−21	−10 421
	1956 I-III	−670	−3 073	−3 743	−230	−975	−3 036	−2 787	−1 623	−23	−12 417
Services (net), excluding United States military expenditure	1954 I-III	+133	+64	+197	−12	−212	−332	−432	−409	−11	−1 211
	1955 I-III	+107	+79	+186	−15	−218	−340	−497	−406	−11	−1 301
	1956 I-III	+82	+148	+230	−20	−231	−338	−528	−431	—	−1 318
United States military expenditure abroad	1954 I-III	+269	+799	+1 068	+63	+53	+148	+19	+597	—	+1 948
	1955 I-III	+261	+977	+1 238	+83	+67	+160	+15	+550	—	+2 113
	1956 I-III	+356	+942	+1 298	+54	+84	+182	+20	+566	—	+2 204
B. Private donations and movements of private United States capital (total)	1954 I-III	+82	+153	+235	−9	+51	+360	+330	+293	+96	+1 356
	1955 I-III	−11	+264	+253	−2	+35	+197	+205	+274	+19	+981
	1956 I-III	+336	+462	+798	+9	+93	+687	+424	+257	+16	+2 284
of which: Private United States capital	1954 I-III	+42	+25	+67	−10	+26	+361	+306	+143	+96	+989
	1955 I-III	−46	+129	+83	−4	+5	+192	+179	+177	+19	+651
	1956 I-III	+300	+309	+609	+6	+63	+685	+391	+142	+16	+1 912

Item	Years and quarters	United Kingdom Ireland Iceland	Other European countries	Total Europe	Affiliated overseas areas [a], [b]	Overseas sterling area	Canada	Latin American Republics	All other countries [b]	International institutions	TOTAL WORLD
C. Surplus or deficit on goods and services, private donations and capital (A+B)	1954 I-III	+376	+236	+612	+147	−49	−225	+146	−108	+58	+581
	1955 I-III	+80	+193	+273	+179	−50	−459	−129	−29	−13	−228
	1956 I-III	+671	+83	+754	+140	−106	−377	+ 47	−142	−7	+309
D. United States Government grants and credits (excluding military aid)	1954 I-III	+87	+488	+575	−3	+66	+3	+54	+421	+41	+1 157
	1955 I-III	+106	+662	+768	−2	+187	+5	+115	+706	+67	+1 846
	1956 I-III	+20	+463	+483	−2	+262	+3	+146	+839	+90	+1 821
E. Changes in foreign holdings of gold and dollar assets (total)	1954 I-III	−260	−937	−1 197	+58	+48	−19	−132	+86	−209	−1 365
	1955 I-III	−114	−792	−906	−3	−39	+95	−62	−312	−32	−1 259
	1956 I-III	−317	−556	−873	−28	+16	−391	−212	−190	−5	−1 683
Net increase (−) or decrease (+) in long-term assets [d]	1954 I-III	−91	−100	−191	+3	−5	+53	−85	−1	−64	−290
	1955 I-III	−153	−262	−415	—	−6	−299	−65	−26	+24	−787
	1956 I-III	−120	−109	−229	—	−4	+8	−9	+7	−80	−307
Net increase (−) or decrease (+) in short-term balances [d]	1954 I-III	−119	−582	−701	+55	+53	−72	−107	+97	−172	−847
	1955 I-III	+39	−450	−411	−3	−33	+394	−11	−284	−75	−423
	1956 I-III	−197	−422	−619	−28	+20	−399	−308	−197	−123	−1 654
Net purchases (−) or sales (+) of gold	1954 I-III	−50	−255	−305	—	—	—	+60	−10	+27	−228
	1955 I-III	—	−80	−80	—	—	—	+14	−2	+19	−49
	1956 I-III	—	−25	−25	—	—	—	+105	—	+198	+278
F. Errors, omissions and inter-regional transfers of dollars	1954 I-III	−203	+213	+10	−202	−65	+241	−68	−399	+110	−373
	1955 I-III	−72	−63	−135	−174	−98	+359	+76	−365	−22	−359
	1956 I-III	−374	+10	−364	−110	−172	+765	+19	−507	−78	−447

Sources : Rearranged from the June, September and December 1956 issues of the *Survey of Current Business*, United States Department of Commerce.

[a] Excluding the sterling area.

[b] Beginning with the first quarter of 1956 former French and Spanish Morocco were shifted from "Affiliated Overseas Areas" to "All Other Countries" except for merchandise trade transactions with Spanish Morocco which are not available separately.

[c] Excluding goods and services provided by the United States to other countries under the military aid programme. See Appendix B.

[d] Official and private.

TABLE II

Index numbers of unit values for total imports and exports

1953 = 100

Country	Type of index [a]	1954	1955	1954				1955				1956		
				1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	1st qtr.	2nd qtr.	3rd qtr.
Imports														
United Kingdom	C	99	102	97	99	100	101	103	102	101	103	104	105	102
France [b]	A	98	97	98	99	98	97	95	97	98	97	99	102	98
Netherlands	A	95	97	95	97	95	94	97	97	97	95	98	100	100
Belgium-Luxembourg	A	96	96	96	97	96	95	96	96	97	97	99	98	98
Switzerland	B	99	98	99	99	99	98	98	97	98	99	100	101	101
Italy	B	98	100	100	100	99	100	101	101	101	102	104	105	105
Spain	A	93	110	92	86	84	113	113	114	114	104	120	112	..
Portugal	B	99	96	97	100	100	99	96	98	102	87	99	102	103
Turkey	B	100	105	104	105	100	99	99	110	101	111	..	..	..
Denmark	A	97	98	98	96	97	96	99	97	98	98	101	103	104
Sweden	C	99	99	99	99	98	99	99	99	99	101	103	103	105
Norway [c]	A	98	100	98	99	95	97	99	99	99	102	101	105	100
Finland	A	96	96	101	98	97	91	96	93	98	95	95	94	100
Western Germany	A	96	100	95	95	98	96	97	100	102	101	102	103	104
Austria	A	97	94	101	99	97	92	95	95	92	94	97	97	96
Total of countries listed (plus Ireland) [d]		98	100	98	98	98	99	100	100	100	101	102	102	102
United States	D	103	102	100	104	104	103	103	101	101	103	104	104	104
Exports														
United Kingdom	C	99	101	99	99	99	99	100	100	102	102	104	104	105
France [b]	A	95	96	97	96	94	93	92	97	96	96	98	101	102
Netherlands	A	100	101	100	100	98	101	101	102	99	103	101	106	101
Belgium-Luxembourg	A	94	97	96	94	92	93	95	97	98	100	102	104	102
Switzerland	B	99	97	100	99	99	98	99	97	97	94	97	95	96
Italy	B	99	98	105	104	102	103	103	103	101	102	105	106	105
Spain	A	97	98	96	96	101	98	94	104	106	96	95	117	..
Portugal	B	102	102	99	102	103	103	102	103	105	100	101	98	101
Turkey	B	95	112	100	100	108	103	103	106	102	137	..	..	..
Denmark	A	100	100	99	98	98	102	100	98	97	106	104	102	104
Sweden	C	98	102	98	97	98	97	100	100	102	104	103	102	103
Norway [c]	A	99	107	99	98	99	101	104	105	108	110	115	112	115
Finland	A	102	109	88	99	110	103	93	105	117	110	98	102	114
Western Germany	A	96	98	98	97	96	95	97	97	98	98	101	101	102
Austria	A	99	102	97	101	100	98	100	103	102	102	102	108	108
Total of countries listed (plus Ireland) [d]		98	99	99	98	98	98	98	99	100	100	101	103	103
United States	D	99	100	100	100	98	99	99	100	100	101	104	103	102
Terms of Trade [e]														
United Kingdom	A	99	97	102	98	99	97	95	97	98	98	100	100	100
France [b]	A	97	99	98	97	96	96	97	100	97	99	99	99	99
Netherlands	A	105	105	105	103	103	107	105	105	102	107	103	105	100
Belgium-Luxembourg	A	98	101	100	97	96	98	98	101	101	103	103	106	104
Switzerland	B	100	99	101	100	100	100	101	100	99	95	97	94	95
Italy	B	102	99	105	104	103	103	102	102	100	101	101	102	100
Spain	A	105	89	105	112	120	87	83	92	93	93	80	104	..
Portugal	B	103	107	102	101	103	104	106	105	103	116	102	96	99
Turkey	A	96	111	93	89	93	103	111	117	115	102	..	..	..
Denmark	A	103	102	102	102	101	106	101	101	99	108	103	99	100
Sweden	C	99	103	99	98	100	99	101	101	103	103	100	99	98
Norway [c]	A	102	107	101	98	104	104	105	106	109	108	114	107	115
Finland	A	106	114	87	100	113	112	97	112	119	115	103	109	114
Western Germany	A	100	98	103	101	98	99	99	97	96	98	99	98	98
Austria	A	102	108	95	102	104	106	105	108	111	108	106	111	112
United States	D	96	98	99	96	94	95	97	98	99	99	100	99	98

Sources and methods : See Appendix B.

[a] A = Unit value index with moving current weights.
B = Unit value index with fixed weights.
C = Unit value index with moving anterior weights.
D = Unit value index with moving crossed weights.

[b] Excluding non-monetary gold.

[c] Including trade in ships.

[d] This index has been derived from current values given in Table VI and volume index of fifteen countries (including Ireland but excluding Turkey) given in Table IV.

[e] The ratio of the export price index to the import price index.

TABLE III

Index numbers of export unit values for major commodity groups

1953 = 100

Commodity group	Country	Type of index [a]	1954	1955	1954				1955				1956		
					1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	1st qtr.	2nd qtr.	3rd qtr.
Chemical products	United Kingdom	A	91	89	94	95	90	86	90	90	90	86	86	90	86
	France	A	96	94	99	99	88	96	93	96	89	85	⧗ 107	112	99
	Western Germany	A	101	100	102	100	100	100	101	100	99	99	99	97	93
	Switzerland	A	104	96	103	100	108	104	100	95	96	92	97	93	91
Textile goods	United Kingdom	C	101	101	101	102	102	99	101	102	101	99	100	99	101
	France	A	98	97	99	98	97	97	96	97	97	97	⧗ 103	91	98
	Western Germany	A	101	101	102	101	98	99	101	99	103	101	107	104	100
	Switzerland	A	101	99	103	102	98	100	103	99	96	97	99	95	95
Finished engineering products [b]	United Kingdom	C	100	103	100	99	100	101	101	102	103	105	105	105	108
	France	A	100	102	102	101	99	99	98	105	105	102	⧗ 103	102	106
	Western Germany	A	99	99	101	99	99	97	98	99	100	100	101	104	104
	Switzerland	A	97	95	98	97	96	95	96	92	94	96	97	94	96
	Sweden	C	96	92	99	90	100	96	91	91	95	96	96	93	96
All manufactures	United Kingdom	C	99	101	99	99	99	99	100	100	102	103	104	104	105
	France	A	100	103	101	101	99	99	98	105	105	105	⧗ 108	107	109
	Western Germany	A	96	98	98	97	95	96	98	98	98	99	101	102	102
	Belgium-Luxembourg	A	94	97	96	95	93	93	96	97	98	99	100	102	100
	Italy	B	103	101	104	103	102	103	102	101	100	101	100	98	99
	Switzerland	B	99	96	100	99	99	98	98	97	96	94	97	95	95
	Sweden	C	96	99	98	97	97	96	99	98	102	101	101	100	101
	United States	D	99	102	100	100	99	99	100	101	102	105	107	107	106

Sources and methods : See Appendix B.

[a] A = unit value index with moving current weights.
B = unit value index with fixed weights.
C = unit value index with moving anterior weights.
D = unit value index with moving crossed weights.

NOTE. — Owing to some discrepancies in the coverage of the commodity group indices, inter-country comparisons should be made with caution.

[b] Combined " Machinery " and " Transport equipment ", shown separately in Table V.

Table IV

Index numbers of volume for total imports and exports

1953 = 100

Country	1953	1954	1955	1954				1955				1956		
	Millions of dollars [a]			1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	1st qtr.	2nd qtr.	3rd qtr.
Imports														
United Kingdom [b]	9 066	101	113	101	102	101	103	116	106	115	116	114	114	108
Ireland	512	98	107	104	96	92	99	115	104	99	109	108	93	78
France [c]	3 938	108	121	109	114	100	109	120	128	110	122	129	149	138
Netherlands	2 376	126	141	117	114	128	143	137	133	141	151	148	158	159
Belgium-Luxembourg	2 423	110	122	106	107	107	109	117	111	114	126	124	130	125
Switzerland	1 180	115	131	104	112	115	129	122	132	128	142	135	148	153
Italy	2 420	104	112	110	107	92	104	106	116	109	117	118	129	119
Spain	600	115	102	112	128	122	98	86	99	87	137	115	122	..
Portugal	331	105	113	89	100	103	129	105	109	113	123	104	110	126
Turkey	532	87	93	81	98	78	92	96	109	85	85	..	..	..
Denmark	996	121	120	106	125	122	131	120	117	115	127	117	130	123
Sweden	1 577	115	127	107	111	111	128	127	126	119	136	120	142	129
Norway [d]	912	114	119	107	111	109	132	127	120	112	119	122	142	118
Finland [e]	530	129	150	95	121	137	164	113	168	151	166	123	194	183
Western Germany	3 810	126	153	108	120	123	151	141	147	153	168	150	168	171
Austria [f]	510	132	183	107	116	125	178	169	170	182	211	179	191	198
Total of countries listed [g]	31 181	111	125	106	110	108	120	122	122	122	132	126	137	132
United States [h]	10 779	93	103	94	99	87	91	99	101	103	111	113	109	110
Exports														
United Kingdom [i]	7 230	104	112	105	105	104	104	116	101	112	119	117	122	110
Ireland [i]	312	102	94	92	84	113	118	101	82	90	102	81	87	98
France [c]	3 765	116	130	111	114	108	132	134	132	117	137	116	123	111
Netherlands	2 153	113	124	108	105	112	126	116	115	127	137	124	131	129
Belgium-Luxembourg	2 259	109	127	97	104	99	118	121	113	106	134	126	135	122
Switzerland	1 202	105	116	96	99	105	120	105	113	114	131	116	123	124
Italy	1 507	107	123	106	103	111	114	107	118	131	140	137	134	147
Spain	483	97	99	109	100	74	106	112	98	62	125	113	71	..
Portugal	219	121	129	106	112	115	152	111	129	134	139	125	115	119
Turkey	396	88	71	95	76	63	118	82	56	55	90	..	..	..
Denmark	883	108	118	103	109	106	114	115	116	115	123	115	121	114
Sweden	1 479	110	115	89	113	110	124	102	113	117	127	97	133	137
Norway [d]	509	115	117	108	117	112	122	123	114	114	117	129	133	128
Finland [e]	572	116	125	84	117	135	127	89	127	154	132	70	140	154
Western Germany	4 422	124	143	109	116	126	143	132	138	139	161	141	169	163
Austria	507	122	136	114	119	122	133	123	130	138	155	148	154	161
Total of countries listed [g]	27 502	112	123	105	109	110	122	119	117	120	134	121	133	127
United States [i]	15 652	97	98	86	109	92	98	96	99	95	103	102	120	115

Sources and methods : See Appendix B.

[a] Values c.i.f. for imports (f.o.b. for the United States) and f.o.b. for exports.

[b] Retained imports.

[c] Excluding non-monetary gold.

[d] Including ships.

[e] For comparability with other countries, the seasonal adjustments in the official Finnish index have been eliminated.

[f] Including imports under the foreign aid programme (from 1953 to 1955).

[g] Excluding Turkey.

[h] Imports for consumption.

[i] Domestic exports.

TABLE V

Index numbers of volume of imports and exports for major commodity groups

1953 = 100

Commodity group	Country	1953 Millions of dollars [a]	1954	1955	1954				1955				1956		
					1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	1st qtr.	2nd qtr.	3rd qtr.
Imports															
Food, drink and tobacco	United Kingdom [b]	3 686	98	105	103	93	94	103	113	96	102	109	110	108	99
	France	1 102	105	115	110	119	88	105	121	132	95	115	128	151	136
	Western Germany	1 392	124	135	113	114	115	156	131	127	129	153	138	147	157
	Total of three countries . .	6 180	105	114	106	102	98	115	119	110	107	120	120	124	118
Raw materials	United Kingdom [b]	3 827	102	112	98	108	104	98	111	106	118	111	107	115	111
	France [c]	2 270	111	121	113	113	107	111	118	126	116	125	134	145	140
	Western Germany	1 823	121	150	105	121	121	137	141	148	155	156	143	166	162
	Total of three countries . .	7 920	109	123	104	113	109	110	120	121	126	125	123	135	131
Manufactures	United Kingdom [b]	1 801	107	134	104	109	106	109	132	123	138	140	141	137	123
	France	547	105	131	94	113	99	116	127	137	124	136	118	162	145
	Western Germany	595	138	197	106	127	144	175	165	186	203	234	192	219	225
	Total of three countries . .	2 943	113	146	103	113	113	124	138	139	148	159	147	158	148
Exports															
Chemical products	United Kingdom .	499	127	148	113	123	130	139	148	129	154	158	157	156	151
	France	196	124	140	119	116	135	130	131	146	136	148	⌶131	144	151
	Western Germany	432	128	148	118	119	131	144	139	143	146	164	153	168	166
	Total of three countries . .	1 127	127	147	116	120	131	140	142	137	148	159	151	158	157
Textile goods	United Kingdom .	911	97	93	104	97	94	93	101	81	97	93	90	88	84
	France	587	111	104	107	106	102	127	110	103	92	111	⌶ 85	103	90
	Western Germany	240	129	143	117	116	136	145	135	134	144	159	135	141	145
	Total of three countries . .	1 738	106	104	107	103	103	112	109	96	102	108	95	101	95
Machinery	United Kingdom .	1 601	101	111	106	106	98	93	115	101	111	117	119	125	111
	France	372	101	104	100	111	93	102	107	108	93	106	⌶ 99	110	93
	Western Germany	947	106	117	95	106	105	120	105	114	114	135	115	138	133
	Total of three countries . .	2 920	103	112	102	106	100	103	110	106	110	121	115	127	116
Transport equipment	United Kingdom .	931	107	114	109	115	105	100	119	109	112	115	128	131	113
	France	212	119	131	120	138	102	115	139	147	112	125	⌶126	145	112
	Western Germany	323	160	218	128	151	159	204	213	220	196	241	229	277	241
	Total of three countries . .	1 466	121	139	115	126	116	125	143	139	131	144	150	165	141
All manufactures	United Kingdom .	5 873	104	113	105	105	104	102	117	102	114	119	118	126	112
	France	1 570	109	108	107	111	98	121	115	111	97	112	94	110	103
	Western Germany	3 304	128	149	111	120	130	148	136	143	146	171	148	177	171
	Total of three countries . .	10 747	112	124	107	111	111	119	123	116	121	134	124	139	129

Sources: See Appendix B.

NOTE. — Owing to some discrepancies in the coverage of the commodity group indices, inter-country comparisons should be made with caution. All indices are quantum indices with fixed weights.

[a] Imports c.i.f. and exports f.o.b.

[b] General imports.

[c] Excluding non-monetary gold.

TABLE VI. — **Imports and exports of n**
according to a

Millions of current c

Area of origin for imports and area of destination for exports ↓	Period	United Kingdom [a]		Ireland		Iceland		France [b]		Netherlands		Belgium-Luxembourg		Switzerland		Italy		Portu
		Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.
I. United Kingdom, Ireland and Iceland	1954-I-IX	210.8	220.3	214.3	200.1	6.1	3.0	123.8	178.4	173.7	209.0	161.0	112.7	57.1	47.0	127.4	96.3	39.6
	1955-I-IX	207.7	229.1	223.6	195.4	6.2	3.3	131.7	252.2	202.8	251.8	179.9	130.8	59.5	53.2	110.3	98.4	42.0
	1956-I-IX	189.8	222.0	216.3	174.3	5.7	3.8	163.7	214.9	222.9	272.8	198.2	158.6	69.3	57.6	123.1	103.5	46.1
II. Western European industrial countries [e]	1954-I-IX	578.5	519.4	29.1	5.3	3.6	2.2	271.6	407.3	449.0	352.8	513.3	540.7	202.0	141.1	259.1	215.9	52.3
	1955-I-IX	741.3	543.2	28.7	5.9	4.0	1.8	342.8	481.5	544.3	403.5	562.5	661.6	237.6	140.0	287.7	247.8	57.9
	1956-I-IX	767.4	610.8	24.1	13.1	4.7	2.3	415.2	508.8	651.4	458.5	633.4	823.1	281.4	182.0	289.6	299.6	59.1
III. Mediterranean and Iberian countries [f]	1954-I-IX	228.9	315.5	7.3	1.8	3.5	4.7	132.1	237.2	46.9	71.5	53.1	100.0	113.2	122.1	65.0	101.7	8.3
	1955-I-IX	251.6	319.5	8.0	1.7	2.4	7.2	155.5	283.8	52.4	92.2	61.8	115.3	124.2	128.2	80.8	142.8	9.9
	1956-I-IX	260.6	340.2	7.2	3.6	3.0	7.5	173.0	263.6	60.5	92.0	59.8	108.4	141.4	130.2	106.3	125.9	11.5
IV. Scandinavian countries [g]	1954-I-IX	722.7	567.3	16.1	1.5	9.1	4.6	105.2	146.9	117.4	190.1	97.4	139.6	28.7	62.4	74.3	68.6	8.3
	1955-I-IX	814.6	588.7	17.9	1.0	7.7	5.8	145.7	165.4	133.6	189.1	110.6	161.1	39.0	58.6	85.3	66.5	11.0
	1956-I-IX	812.9	642.9	19.0	0.7	8.9	3.7	173.7	142.3	139.9	201.8	124.0	165.4	39.2	63.7	100.5	70.6	16.4
V. Western Germany and Austria	1954-I-IX	183.3	162.3	16.1	3.6	4.3	2.1	258.6	261.7	367.4	272.8	263.0	165.1	221.0	129.6	313.8	175.5	35.8
	1955-I-IX	201.3	177.3	21.7	3.3	5.6	1.3	322.6	376.9	438.7	347.4	296.2	250.4	278.8	151.9	331.1	221.2	42.3
	1956-I-IX	251.6	212.8	18.8	3.9	5.9	3.5	426.0	376.6	510.0	389.2	361.6	254.3	339.6	175.2	385.2	261.1	52.5
VI. Western Europe	1954-I-IX	1 924.2	1 784.8	282.9	212.3	26.6	16.6	891.3	1 231.5	1 154.4	1 096.2	1 087.8	1 058.1	622.0	502.2	839.6	658.0	144.3
	1955-I-IX	2 216.5	1 857.8	299.9	207.3	25.9	19.4	1 098.3	1 559.8	1 371.8	1 284.0	1 211.0	1 319.2	739.1	531.9	895.2	776.7	163.1
	1956-I-IX	2 282.3	2 028.7	285.4	195.6	28.2	20.8	1 351.6	1 506.2	1 584.7	1 414.3	1 377.0	1 509.8	870.9	608.7	1004.7	860.7	185.6
VII. Eastern European countries [h]	1954-I-IX	66.6	30.1	0.7	0.1	3.4	3.5	18.8	27.0	21.9	34.4	14.8	29.1	22.8	22.7	28.4	23.0	0.3
	1955-I-IX	89.4	29.5	3.4	0.1	4.3	3.1	26.5	72.5	29.5	32.1	14.7	35.4	26.0	25.9	31.7	29.8	0.6
	1956-I-IX	97.8	31.4	1.1	0.1	6.2	4.2	35.3	56.9	38.0	28.1	20.8	35.6	34.8	27.0	39.1	31.4	1.5
VIII. Union of Soviet Socialist Republics	1954-I-IX	81.9	14.9	0.2	—	5.7	5.0	29.8	24.3	13.4	26.3	21.1	18.5	4.6	2.1	14.6	17.7	—
	1955-I-IX	108.1	40.7	0.3	—	5.7	5.6	33.1	27.9	21.1	7.4	18.1	10.7	4.7	3.5	20.0	12.0	—
	1956-I-IX	107.3	54.3	0.6	—	9.2	7.9	45.7	30.7	19.6	7.0	20.7	18.7	5.9	1.5	15.0	14.1	—
IX. Total Europe (including U.S.S.R.)	1954-I-IX	2 072.7	1 829.8	283.8	212.4	35.7	25.1	939.9	1282.8	1 189.7	1 156.9	1 123.7	1 105.7	649.4	527.0	882.6	698.7	144.6
	1955-I-IX	2 414.0	1 928.0	303.6	207.4	35.9	28.1	1 157.9	1 660.2	1 422.4	1 323.5	1 243.8	1 365.3	769.8	561.3	946.9	818.5	163.7
	1956-I-IX	2 487.4	2 114.4	287.1	195.7	43.6	32.9	1 432.6	1 593.8	1 642.3	1 449.4	1 418.5	1 564.1	911.6	637.2	1058.8	906.2	187.1
X. United States and dependencies	1954-I-IX	531.4	308.6	23.1	3.7	10.1	7.0	277.4	113.0	234.2	118.9	203.2	136.5	120.9	108.3	215.6	91.6	21.6
	1955-I-IX	846.4	363.3	35.2	5.7	12.9	4.9	347.3	141.4	316.1	111.8	230.8	168.0	140.6	104.7	300.4	109.2	26.1
	1956-I-IX	789.3	489.6	29.6	6.5	9.6	5.6	484.7	164.8	390.4	132.0	287.2	224.0	164.9	121.0	365.8	140.0	32.1
XI. Canada and Newfoundland	1954-I-IX	538.1	274.6	7.0	1.3	0.2	—	30.1	14.8	20.9	10.5	33.5	17.2	27.9	15.1	11.9	9.0	2.0
	1955-I-IX	721.9	285.5	13.5	0.6	0.2	—	45.0	17.3	28.9	12.2	36.9	18.0	30.7	16.4	17.9	10.9	1.7
	1956-I-IX	713.8	371.9	9.8	0.9	0.2	—	49.0	22.4	34.2	15.4	31.6	37.3	31.9	18.5	25.8	16.0	1.3
XII. Latin American republics	1954-I-IX	492.5	231.9	7.2	—	1.5	2.0	193.4	179.7	149.2	89.3	133.3	79.9	69.1	80.2	101.5	102.3	4.9
	1955-I-IX	501.5	237.5	9.6	—	1.5	2.0	137.3	188.2	144.0	104.2	102.6	85.9	55.5	84.4	130.4	136.5	9.9
	1956-I-IX	575.9	278.5	7.4	—	1.9	1.6	178.8	131.5	188.2	80.9	116.1	91.3	66.5	80.7	143.9	128.4	9.7
XIII. Overseas sterling area (including British colonies)	1954-I-IX	2 927.4	2 546.8	35.5	2.8	—	0.6	642.4	122.3	165.7	153.8	164.6	117.9	27.7	67.5	359.8	131.9	19.7
	1955-I-IX	3 058.1	2 646.0	38.6	2.7	—	0.5	660.5	140.1	183.9	162.9	198.2	129.7	33.7	73.3	389.1	107.6	19.6
	1956-I-IX	2 989.5	2.706.0	25.6	3.0	0.1	1.2	675.8	150.2	201.9	161.4	207.8	166.1	35.0	78.3	454.3	141.0	22.7
XIV. Affiliated overseas areas (excluding sterling area)	1954-I-IX	205.5	111.4	5.8	0.3	0.8	0.2	909.8	983.3	78.2	62.6	171.4	121.4	11.6	20.5	50.8	30.7	51.3
	1955-I-IX	211.8	118.6	6.0	0.1	0.8	0.1	899.0	1 021.7	77.0	74.3	192.3	119.1	10.6	20.5	53.7	38.3	47.8
	1956-I-IX	212.4	118.5	7.2	0.3	0.7	0.2	1 020.0	1 039.0	70.4	83.1	207.1	137.1	10.1	19.6	68.7	43.4	49.2
XV. Other overseas countries	1954-I-IX	203.9	275.7	5.5	0.6	0.6	0.3	169.9	307.8	200.9	103.0	60.3	66.2	38.7	63.2	152.5	93.1	5.6
	1955-I-IX	254.8	317.7	6.9	0.8	0.7	0.4	185.7	255.9	180.6	119.8	64.5	83.0	40.4	75.1	144.2	103.9	7.8
	1956-I-IX	328.8	401.6	7.8	1.1	0.9	0.4	227.1	193.7	194.8	150.6	98.3	111.1	48.5	71.7	175.9	144.7	8.5
XVI. Total overseas countries	1954-I-IX	4 898.8	3 749.0	84.1	8.7	13.2	10.1	2 223.0	1 720.9	849.1	538.1	766.3	539.1	295.9	354.8	892.1	458.6	105.1
	1955-I-IX	5 594.5	3 968.6	109.8	9.9	16.1	7.9	2 274.8	1 764.6	930.5	585.2	825.3	603.7	311.5	374.4	1035.7	506.4	112.9
	1956-I-IX	5 609.7	4 366.1	87.4	11.8	13.4	9.0	2 635.4	1 701.6	1 079.9	623.4	948.1	766.9	356.9	389.8	1234.4	613.5	123.5
XVII. TOTAL WORLD	1954-I-IX	6.971.5	5 578.8	367.9	221.1	48.9	35.2	3 162.9	3 003.7	2 038.8	1 695.0	1 890.0	1 644.8	945.3	881.8	1774.7	1157.3	249.7
	1955-I-IX	8 008.5	5 896.6	413.4	217.3	52.0	36.0	3 432.7	3 424.8	2 352.9	1 908.7	2 069.1	1 969.0	1081.3	935.7	1982.6	1324.9	276.6
	1956-I-IX	8 097.1	6 480.5	374.5	207.5	57.0	41.9	4 068.0	3 295.4	2 722.2	2 072.8	2 366.6	2 331.0	1268.5	1027.0	2293.2	1519.7	310.6
XVIII. DOLLAR AREA [i]	1954-I-IX	1 209.5	727.3	32.5	5.0	10.6	7.3	350.4	207.3	328.9	177.1	296.2	204.8	178.6	163.3	250.0	142.9	23.9
	1955-I-IX	1 734.4	799.4	52.1	6.4	13.3	5.1	430.5	226.0	449.7	176.5	322.3	235.1	199.5	161.5	343.2	170.7	29.2
	1956-I-IX	1 705.0	1 067.7	42.9	7.5	10.3	6.0	580.5	268.4	566.3	206.7	388.5	339.2	227.1	182.7	429.8	221.0	38.1

Sources and methods : See Appendix B.

[a] Imports are general imports, and exports exclude re-exports.

[b] Excluding non-monetary gold; see Appendix B.

[c] Imports f.o.b.

[d] Exports excluding special categories.

[e] France, the Netherlands, Belgium-Luxembourg, Switzerland.

ean countries and the United States
and destination

: *c.i.f., exports f.o.b.*

reece, in and urkey		Yugo-slavia		Denmark		Sweden		Norway		Finland		Western Germany		Austria		Total of nineteen countries		United States		Period	Origin and destination
.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp. [c]	Exp. [d]		
.7	79.9	19.1	16.5	226.3	276.2	213.6	226.3	147.9	82.6	73.3	117.4	151.3	166.1	23.0	19.5	2 079.0	2 077.7	376.4	459.8	I-IX-1954	I
.3	75.1	15.5	13.6	221.9	263.2	200.5	251.9	159.1	106.9	99.1	144.4	148.4	196.0	29.3	18.7	2 142.8	2 317.0	450.9	692.1	I-IX-1955	
.8	77.1	23.4	13.4	230.1	259.7	212.4	258.4	177.7	114.0	117.3	127.1	205.4	240.6	30.3	22.3	2 354.5	2 348.7	528.7	619.4	I-IX-1956	
.8	85.2	31.2	17.5	153.2	40.9	251.0	183.2	98.0	48.2	75.4	60.5	757.0	1 079.3	59.1	60.2	3 947.2	3 776.9	476.4	801.6	I-IX-1954	II
.1	106.5	32.7	19.4	161.2	60.7	275.8	212.4	111.0	50.3	73.1	77.9	1 040.6	1 289.6	83.0	70.4	4 755.3	4 394.9	517.4	947.4	I-IX-1955	
.4	88.9	23.2	24.8	159.8	69.0	279.6	257.3	115.3	66.4	89.5	73.2	1 095.1	1 590.9	93.1	92.7	5 140.3	5 186.8	620.0	1 233.6	I-IX-1956	
.9	75.8	35.3	47.8	23.7	33.7	58.7	69.6	24.4	23.3	18.1	20.4	316.6	474.2	59.2	119.0	1 324.2	1 827.2	248.2	452.6	I-IX-1954	III
.3	60.9	40.3	39.7	22.5	39.7	61.6	72.3	22.7	28.0	17.2	18.7	374.8	510.9	78.6	117.2	1 439.6	1 989.9	271.4	632.8	I-IX-1955	
.8	62.8	33.1	40.8	25.6	46.5	67.3	82.3	20.9	31.4	18.2	19.0	419.7	577.2	80.4	137.8	1 571.3	2 082.6	308.5	827.8	I-IX-1956	
.7	37.8	6.4	3.1	130.2	76.5	92.3	201.9	141.7	78.6	36.5	35.2	324.7	543.6	12.9	15.8	1 983.6	2 181.5	165.2	172.3	I-IX-1954	IV
.2	36.1	5.9	2.2	126.8	103.1	99.8	233.7	180.2	79.9	56.0	33.9	431.2	619.8	17.8	17.9	2 339.3	2 371.4	180.6	233.8	I-IX-1955	
.5	34.2	3.7	2.2	132.2	103.1	118.8	224.8	148.0	99.4	61.7	27.7	488.7	720.9	19.3	20.0	2 474.4	2 531.8	214.3	278.4	I-IX-1956	
.0	100.6	57.1	48.8	173.3	94.9	256.2	144.3	117.7	47.2	32.6	35.1	92.7	163.1	155.8	99.8	2 720.7	1 918.0	221.2	349.2	I-IX-1954	V
.4	108.8	57.9	34.7	174.1	137.4	332.1	169.9	119.5	57.3	51.2	52.8	121.8	229.6	223.0	129.2	3 177.3	2 466.0	280.3	470.5	I-IX-1955	
.9	96.1	45.2	44.6	192.8	160.3	359.5	195.3	165.6	68.9	78.1	49.4	133.8	242.1	238.3	143.5	3 780.4	2 691.6	375.5	582.6	I-IX-1956	
.1	379.3	149.1	133.7	706.7	522.2	871.8	825.3	529.7	279.9	235.9	268.6	1 642.3	2 426.3	310.0	314.3	12 054.7	11 781.3	1 487.4	2 235.5	I-IX-1954	VI
.3	387.4	152.3	109.6	706.5	604.1	969.8	940.2	592.5	322.4	296.6	327.7	2 116.8	2 845.9	431.7	353.4	13 854.3	13 539.2	1 700.6	2 976.6	I-IX-1955	
.4	359.1	128.6	125.8	740.5	638.6	1 037.6	1 018.1	627.5	380.1	364.8	296.4	2 342.7	3 371.7	461.4	416.3	15 320.9	14 841.5	2 047.0	3 541.8	I-IX-1956	
.2	47.7	1.3	1.5	20.8	32.0	30.4	34.8	22.2	15.6	69.4	26.7	43.9	46.0	36.6	40.5	432.5	415.5	20.6	1.7	I-IX-1954	VII
.4	54.9	8.9	10.5	23.9	19.5	35.8	34.8	15.2	16.6	86.0	35.0	59.6	72.0	52.6	41.9	582.5	516.2	28.0	6.0	I-IX-1955	
.6	55.5	23.1	22.6	31.0	15.3	47.0	32.3	27.0	19.6	76.8	43.1	117.2	113.0	62.7	70.9	713.0	589.0	32.1	5.6	I-IX-1956	
.1	4.2	—	—	11.2	17.6	17.8	15.8	10.3	18.6	56.6	108.3	11.7	8.2	0.9	1.0	282.9	286.6	9.3	0.2	I-IX-1954	VIII
.3	4.2	6.8	7.7	5.0	5.9	22.0	8 3	13.6	11.4	62.4	102.0	21.3	12.2	2.5	0.7	353.0	262.9	11.1	0.1	I-IX-1955	
.5	7.9	38.5	26.7	4.7	3.0	31.1	17.8	14.0	19.3	78.8	96.3	32.2	50.4	4.8	9.6	434.6	368.0	15.7	3.0	I-IX-1956	
.4	431.2	150.4	135.2	738.7	571.8	920.0	875.9	562.2	314.1	361.9	403.6	1 697.9	2 480.5	347.5	355.8	12 770.1	12 483.4	1 517.3	2 237.4	I-IX-1954	IX
.0	446.5	168.0	127.8	735.4	629.5	1 027.6	983.3	621.3	350.4	445.0	464.7	2 197.7	2 930.1	486.8	396.0	14 789.8	14 318.3	1 739.7	2 982.7	I-IX-1955	
.5	422.5	190.2	175.1	776.2	656.9	1 115.7	1 068.2	668.5	419.0	520.4	435.8	2 492.1	3 535.1	528.9	496.8	16 468.5	15 798.5	2 094.8	3 550.4	I-IX-1956	
.4	66.9	69.4	15.6	37.0	42.3	101.6	57.0	60.6	38.5	18.3	27.7	365.4	211.8	42.0	20.7	2 509.2	1 387.7			I-IX-1954	X
.3	68.0	133.4	17.8	59.9	45.0	141.1	53.0	71.9	38.6	28.4	32.0	545.0	271.9	67.6	24.3	3 514.4	1 579.8			I-IX-1955	
.7	102.3	118.7	20.1	87.0	49.1	165.2	72.9	84.4	48.5	42.9	39.9	667.7	348.5	94.1	32.7	4 073.3	2 017.5			I-IX-1956	
.8	3.4	0.1	0.1	0.3	2.3	2.5	6.3	29.5	1.4	2.1	0.5	60.9	30.1	3.5	2.0	774.3	390.2	1 760.5	2 020.4	I-IX-1954	XI
.7	3.4	0.1	0.4	1.6	2.8	7.5	8.3	33.2	1.8	2.6	0.2	81.9	37.1	6.2	1.9	1 035.5	418.3	1 940.9	2 296.3	I-IX-1955	
.9	4.2	0.2	0.6	2.7	4.8	7.3	12.2	45.5	2.1	1.8	0.3	107.1	61.3	5.9	3.0	1 076.0	572.4	2 113.3	2 865.1	I-IX-1956	
.3	41.0	5.1	6.2	47.4	36.0	102.1	86.2	28.3	23.7	44.5	22.2	373.7	364.1	15.0	19.9	1 820.0	1 373.6	2 548.0	2 320.9	I-IX-1954	XII
.4	37.0	13.6	8.3	40.8	34.6	101.6	76.3	34.9	26.4	48.6	30.7	477.8	357.6	23.0	21.6	1 904.0	1 441.9	2 414.4	2 284.8	I-IX-1955	
.7	39.6	16.7	8.3	50.1	33.6	121.5	91.8	37.3	30.9	38.6	33.5	558.8	406.2	23.6	21.5	2 196.7	1 467.1	2 784.9	2 673.2	I-IX-1956	
.6	12.5	11.1	1.6	8.1	16.5	75.5	66.0	17.4	32.4	11.1	12.1	371.8	282.9	21.3	21.5	4 901.7	3 596.7	778.8	653.1	I-IX-1954	XIII
.7	9.7	11.3	1.7	7.2	19.4	81.0	73.8	20.7	33.2	11.3	16.0	496.9	361.1	28.2	29.9	5 272.0	3 817.4	881.8	762.3	I-IX-1955	
.5	8.3	18.3	6.6	7.5	22.2	92.7	86.6	22.7	39.3	16.5	17.1	522.4	439.4	28.2	32.2	5 369.5	4 067.8	900.0	907.0	I-IX-1956	
0	41.8	1.1	1.7	4.8	8.3	38.9	13.5	15.0	3.9	3.1	2.6	114.1	69.8	3.5	7.3	1 731.7	1 534.6	312.8	182.7	I-IX-1954	XIV
4	38.2	1.4	2.2	2.1	8.7	42.9	14.5	16.9	4.4	3.9	2.8	148.0	74.6	8.8	7.0	1 778.4	1 601.1	338.7	176.8	I-IX-1955	
.6	42.8	0.7	2.0	2.7	11.6	31.2	18.7	20.1	4.4	12.0	3.0	161.8	81.6	11.0	9.1	1 955.9	1 676.1	357.6	213.5	I-IX-1956	
.7	38.5	3.4	6.5	12.2	13.1	36.1	33.0	14.2	12.4	11.7	14.2	226.1	296.7	9.2	17.7	1 229.5	1 346.9	785.2	1 304.4	I-IX-1954	XV
.6	26.4	18.6	9.4	14.5	13.2	50.5	31.9	15.6	16.9	14.5	23.3	254.2	321.2	10.3	20.1	1 353.4	1 423.4	957.5	1 310.6	I-IX-1955	
2	32.5	10.8	11.4	17.3	19.3	58.8	45.1	14.8	21.4	11.2	20.5	296.2	371.2	15.4	23.3	1 610.3	1 624.7	1 065.3	1 547.3	I-IX-1956	
8	204.1	90.2	31.7	109.8	118.5	356.7	262.0	165.0	112.3	90.8	79.3	1 512.0	1 255.4	94.5	89.1	12 966.4	9 629.7	6 185.3	6 481.5	I-IX-1954	XVI
1	182.7	178.4	39.8	126.1	123.7	424.6	257.8	193.2	121.3	109.3	105.0	2 003.8	1 423.5	144.1	104.8	14 857.7	10 281.9	6 533.3	6 830.8	I-IX-1955	
6	229.7	165.4	49.0	167.3	140.6	476.7	327.3	224.8	146.6	123.0	114.3	2 314.0	1 708.2	178.2	121.8	16 281.7	11 425.6	7 221.1	8 206.1	I-IX-1956	
.2	635.3	240.6	166.9	848.5	690.3	1 276.7	1 137.9	727.2	426.4	452.7	482.9	3 209.9	3 735.9	442.0	444.9	25 736.5	22 113.1	7 702.6	8 718.9	I-IX-1954	XVII
.1	629.2	346.4	167.6	861.5	753.2	1 452.2	1 241.1	814.5	471.7	554.3	569.7	4 201.5	4 353.6	630.9	500.8	29 647.5	24 600.2	8 273.0	9 813.5	I-IX-1955	
.1	652.2	355.6	224.1	943.5	797.5	1 592.4	1 395.5	893.3	565.6	643.4	550.1	4 806.1	5 243.3	707.1	618.6	32 750.2	27 224.1	9 315.9	11756.5	I-IX-1956	
8	82.6	69.5	15.7	42.2	55.2	140.6	90.7	101.9	49.5	22.8	31.4	564.8	438.8	49.3	27.7	3 873.5	2 451.0	3 719.2	4 055.6	I-IX-1954	XVIII
4	87.2	134.3	18.3	68.2	57.2	203.5	88.3	125.0	53.6	37.3	35.2	861.8	534.2	78.5	32.9	5 331.2	2 712.6	3 842.5	4 374.7	I-IX-1955	
6	120.6	125.0	20.8	99.8	66.5	249.8	130.8	149.1	72.3	48.7	46.9	1 067.2	660.4	113.1	43.1	6 140.8	3 487.3	4 159.6	5 183.6	I-IX-1956	

taly, Greece, Spain, Portugal, Yugoslavia, Turkey and miscellaneous continental
nd non-continental European countries and territories.
Denmark, Sweden, Norway, Finland.

[h] Bulgaria, Czechoslovakia, eastern Germany, Hungary, Poland and Rumania.

[i] United States, Canada, Latin American dollar countries, the Philippines, and Liberia.

TABLE VII. — Trade of nineteen European countries and the United States with overseas countries

Millions of current dollars ; imports c.i.f. ; exports f.o.b. ; January–September of each year

Area of origin	IMPORTS																	
	United Kingdom [a]			France [b]			Western Germany			Other western European countries [c]			Total of nineteen western European countries			United States [d]		
	1954 I–IX	1955 I–IX	1956 I–IX	1954 I–IX	1955 I–IX	1956 I–IX	1954 I–IX	1955 I–IX	1956 I–IX	1954 I–IX	1955 I–IX	1956 I–IX	1954 I–IX	1955 I–IX	1956 I–IX	1954 I–IX	1955 I–IX	1956 I–IX
XII. Latin American Republics	492.5	501.5	575.9	193.4	137.3	178.8	373.7	477.8	558.8	760.4	787.4	883.2	1820.0	1904.0	2196.7	2548.0	2414.4	2784.9
Argentina	176.1	179.0	197.3	43.9	27.0	62.1	86.0	88.7	96.6	195.7	147.4	146.2	501.7	442.1	502.2	84.9	101.4	105.0
Brazil	79.7	64.4	57.9	83.9	52.7	44.4	112.7	83.2	82.1	239.4	229.2	216.0	515.7	429.5	400.4	469.2	419.9	581.8
Chile	26.6	47.9	61.9	6.6	5.6	7.1	24.6	60.2	67.3	27.4	40.5	52.1	85.2	154.2	188.4	164.3	144.5	168.4
Colombia	0.3	4.4	2.4	2.6	3.0	2.3	28.4	34.1	33.9	32.5	39.4	45.7	63.8	80.9	84.3	412.7	293.9	330.1
Cuba	33.2	17.0	35.0	5.5	4.2	6.4	1.5	18.4	21.6	27.8	40.6	43.0	68.0	80.2	106.0	346.0	315.0	385.5
Mexico	5.8	13.5	14.3	5.1	4.5	12.2	30.4	61.1	79.9	32.8	39.4	62.1	74.1	118.5	168.5	260.9	311.0	303.1
Peru	32.6	26.7	34.1	8.1	7.8	7.3	10.4	19.3	32.6	23.7	29.6	31.2	74.8	83.4	105.2	77.4	71.9	99.1
Uruguay	42.7	24.0	27.8	9.0	6.6	11.8	16.1	11.8	27.8	38.0	33.4	45.5	105.8	75.8	112.9	23.2	15.1	19.4
Venezuela	36.9	61.6	78.4	21.1	15.0	16.8	13.7	22.3	31.6	70.4	98.5	157.7	142.1	197.4	284.5	363.9	426.6	501.9
Other Latin America	58.6	63.0	66.8	7.6	10.9	8.4	49.9	78.7	85.4	72.7	89.4	83.7	188.8	242.0	244.3	345.5	315.1	290.6
XIII. Overseas sterling area (including British colonies)	2927.4	3058.1	2989.5	642.4	660.5	675.8	371.8	496.9	522.4	960.1	1056.5	1181.8	4901.7	5272.0	5369.5	778.8	881.8	900.0
Africa :																		
British East Africa	65.0	65.5	63.3	7.4	5.2	5.2	25.0	26.0	35.6	25.8	28.8	32.0	123.2	125.5	136.1	26.0	38.7	31.8
British West Africa	337.9	308.3	264.1	12.7	21.7	8.1	50.1	53.8	55.5	61.1	76.6	81.9	461.8	460.4	409.6	82.6	69.7	78.9
Federation of Rhodesia and Nyasaland	177.7	201.6	222.0	0.5	8.7	10.9	14.1	15.9	19.1	17.2	21.4	23.9	209.5	247.6	275.9	36.3	43.7	31.2
Union of South Africa	184.2	170.1	188.0	44.1	37.2	39.4	39.7	46.2	48.9	88.0	88.8	111.3	356.0	342.3	387.6	62.3	66.9	78.3
Asia :																		
Bahrein, Kuwait, Qatar and Oman	325.8	313.2	323.2	132.9	135.5	158.3	17.1	21.6	25.7	158.8	161.7	200.5	634.6	632.0	707.7	52.1	70.1	76.8
Burma	14.3	17.6	16.2	0.9	0.9	1.0	1.1	2.4	3.2	3.8	6.3	10.0	20.1	27.2	30.4	2.2	1.1	1.4
Ceylon	83.2	87.8	84.6	2.2	4.1	3.4	7.2	13.6	9.3	16.2	18.7	17.1	108.8	124.2	114.4	23.7	27.2	24.6
Hong Kong	22.5	33.8	43.5	0.3	1.0	1.6	0.3	1.5	2.8	5.6	5.3	7.2	28.7	41.6	55.1	8.4	10.9	13.7
India	280.5	324.4	293.2	11.1	16.4	19.9	24.1	48.6	35.3	48.4	71.2	70.5	364.1	460.6	418.9	156.0	171.9	155.4
Iraq	91.4	67.8	57.3	169.7	163.7	174.2	29.3	40.0	52.6	136.5	165.7	173.9	426.9	437.2	458.0	10.2	13.3	28.0
Malaya and Singapore	107.0	160.1	176.2	41.2	63.5	50.5	33.2	56.8	48.3	72.5	83.8	102.1	253.9	364.2	377.1	123.4	177.7	163.0
Pakistan	53.9	61.9	49.8	22.9	24.3	27.7	22.6	23.4	22.8	43.6	42.7	46.2	143.0	152.3	146.5	18.6	22.9	28.8
Oceania:																		
Australia	516.4	567.9	486.8	141.6	127.0	123.9	61.4	78.9	98.4	197.0	167.9	163.2	916.4	941.7	872.3	89.1	96.7	100.4
New Zealand	401.3	401.6	427.4	53.1	49.7	49.0	19.2	32.5	28.9	37.0	41.0	47.8	510.6	524.8	553.1	36.9	30.6	47.3
Other overseas sterling area	266.3	276.5	293.9	1.8	1.6	2.7	27.4	35.7	36.0	48.6	76.6	94.2	344.1	390.4	426.8	51.0	40.4	40.4
XIV. Affiliated overseas areas (excluding the sterling area)	205.5	211.8	212.4	909.8	899.0	1020.0	114.1	148.0	161.8	502.3	519.6	561.7	1731.7	1778.4	1955.9	312.8	338.7	357.6
Algeria	35.5	42.5	32.1	243.3	270.1	281.0	7.2	17.0	12.0	17.1	21.8	23.1	303.1	351.4	348.2	4.2	4.9	2.6
Belgian Congo and Ruanda Urundi	11.3	11.6	15.0	26.1	37.4	38.2	30.2	25.5	27.4	169.7	194.1	212.6	237.3	268.6	293.2	66.8	75.0	84.6
French West and Equatorial Africa	11.9	13.9	11.8	295.9	256.9	297.1	21.0	27.4	26.4	41.7	46.4	36.1	370.5	344.6	371.4	41.5	39.1	30.7
Morocco	19.3	17.6	22.7	110.2	126.6	181.5	24.7	25.9	21.0	45.1	53.0	55.2	199.3	223.1	280.4	10.0	9.6	7.3
Netherlands Antilles and Surinam	77.7	70.6	67.5	2.4	7.2	8.1	6.0	15.8	33.0	84.5	82.6	78.3	170.6	176.2	186.9	132.3	170.9	189.4
Portuguese overseas areas	3.8	5.5	7.1	7.6	9.1	7.6	16.9	20.1	22.6	70.4	54.7	68.8	98.7	89.4	106.1	40.9	25.0	30.1
Spanish overseas areas	30.9	34.1	38.1	1.5	2.5	3.9	4.6	9.2	13.3	48.1	43.7	55.0	85.1	89.5	110.3	3.0	2.3	1.0
Tunisia	12.5	12.7	15.0	65.5	50.2	51.1	1.6	4.2	2.4	16.8	13.7	18.4	96.4	80.8	86.9	1.7	1.9	0.5
Other affiliated overseas areas	2.6	3.3	3.1	157.3	139.0	151.5	1.9	2.9	3.7	8.9	9.6	14.2	170.7	154.8	172.5	12.4	10.0	11.4
XV. Other overseas countries	203.9	254.8	328.8	169.9	185.7	227.1	226.1	254.2	296.2	629.6	658.7	758.2	1229.5	1353.4	1610.3	785.2	957.5	1065.3
Cambodia, Laos and Viet-Nam	0.8	2.4	1.0	16.0	19.6	38.7	0.7	1.1	1.0	1.3	1.4	1.4	18.8	24.5	42.1	16.6	23.9	15.2
China (including Taiwan)	21.2	26.6	27.4	7.0	7.5	11.5	26.5	35.5	40.5	21.0	30.9	45.8	75.7	100.5	125.2	9.5	10.6	10.8
Egypt	42.4	23.2	20.5	38.1	31.3	29.0	28.1	26.0	21.8	68.0	58.8	57.7	176.6	139.3	129.0	17.2	19.9	11.4
Indonesia	17.3	22.9	21.2	6.1	9.6	10.2	57.9	59.1	57.1	145.1	102.9	114.0	226.4	194.5	202.5	120.6	153.7	138.8
Iran	6.6	35.1	77.4	6.2	25.9	40.5	13.6	19.3	20.0	12.3	47.2	72.4	38.7	127.5	210.3	15.3	22.0	28.8
Israel	22.8	20.0	27.4	1.8	1.9	3.6	1.8	1.8	5.3	35.2	35.7	30.9	61.6	59.4	67.2	9.7	12.6	14.8
Japan	23.4	53.7	59.0	8.1	8.6	8.8	14.1	15.9	19.4	35.0	69.2	79.7	80.6	147.4	166.9	198.2	288.5	398.5
Liberia	3.0	4.3	4.7	—	—	—	2.1	5.8	9.2	3.3	3.8	13.2	8.4	13.9	27.1	18.0	26.5	31.9
Philippines	4.0	4.2	4.6	1.2	1.0	1.3	13.3	16.2	33.3	34.1	35.2	49.4	52.6	56.6	88.6	215.5	217.0	208.4
Saudi Arabia	1.6	8.5	11.1	61.2	44.5	49.6	40.8	47.0	53.6	127.2	136.6	159.8	230.8	236.6	274.1	45.1	42.5	61.7
Sudan	44.3	30.3	50.0	6.2	10.6	5.1	7.8	8.7	14.5	12.9	14.0	21.6	71.2	63.6	91.2	3.6	2.6	3.0
Syria and Lebanon	7.1	12.8	10.8	15.2	21.9	24.3	14.6	9.0	9.5	89.4	75.7	66.9	126.3	119.4	111.5	8.8	11.7	12.6
Thailand	5.1	5.4	6.7	0.3	0.3	0.9	1.9	3.1	5.6	9.7	13.7	11.5	17.0	22.5	24.7	39.5	72.6	73.1
Rest of other overseas countries	4.3	5.4	7.0	2.5	3.0	3.6	2.9	5.7	5.4	35.1	33.6	33.9	44.8	47.7	49.9	67.6	53.4	56.3

Area of destination	United Kingdom [e]			France [b]			Western Germany			Other western European countries [c]			Total of nineteen western European countries			United States [f]		
	1954 I–JX	1955 I–IX	1956 I–IX	1954 I–IX	1955 I–IX	1956 I–IX	1954 I–IX	1955 I–IX	1956 I–IX	1954 I–IX	1955 I–IX	1956 I–IX	1954 I–IX	1955 I–IX	1956 I–IX	1954 I–IX	1955 I–IX	1956 I–IX
XII. Latin American Republics	231.9	237.5	278.5	179.7	188.2	131.5	364.1	357.6	406.2	597.9	658.6	650.9	1373.6	1441.9	1467.1	2320.9	2284.8	2673.2
Argentin	45.1	51.1	33.9	29.4	54.0	22.9	58.6	62.5	74.8	94.0	152.2	110.7	227.1	319.8	242.3	81.1	113.0	151.3
Brazil	17.1	13.4	29.4	56.9	54.1	20.6	102.2	57.9	47.7	195.8	179.3	151.6	372.0	304.7	249.3	346.0	173.9	215.4
Chile	7.5	9.3	9.5	12.2	6.9	7.9	18.3	22.4	25.2	21.1	20.3	27.6	59.1	58.9	70.2	48.9	62.6	104.0
Colombia	19.2	18.2	16.6	18.5	11.4	10.7	37.3	43.5	50.6	44.6	40.5	46.0	119.6	113.6	123.9	243.6	237.4	257.5
Cuba	8.6	10.4	17.4	4.0	5.0	7.8	10.5	12.1	17.0	26.5	31.3	27.9	49.6	58.8	70.1	308.0	326.8	365.2
Mexico	12.1	14.5	19.4	8.9	6.9	8.7	22.9	27.0	38.6	39.6	42.9	62.0	83.5	91.3	128.7	467.2	501.5	599.3
Peru	13.7	18.4	30.2	7.9	6.6	8.8	11.1	15.8	20.4	19.7	24.6	30.2	52.4	65.4	89.6	68.7	82.5	114.9
Uruguay	27.8	16.4	8.3	13.7	7.6	2.6	17.9	12.4	9.6	29.5	29.8	25.3	88.9	66.2	45.8	26.0	28.5	19.5
Venezuela	47.6	48.3	71.8	16.7	20.6	23.1	38.9	53.5	61.8	73.8	77.1	101.0	177.0	199.5	257.7	386.1	389.0	455.0
Other Latin America	33.2	37.5	42.0	11.5	15.1	18.4	46.4	50.5	60.5	53.3	60.6	68.6	144.4	163.7	189.5	345.3	369.6	391.1
XIII. Overseas sterling area (including British colonies)	2546.8	2646.0	2706.0	122.3	140.1	150.2	282.9	361.1	439.4	644.7	670.2	772.2	3596.7	3817.4	4067.8	653.1	762.3	907.0
Africa :																		
British East Africa	117.9	130.8	128.7	7.3	11.4	8.3	11.1	16.4	15.1	23.6	30.5	24.3	159.9	189.1	176.4	4.2	7.3	5.6
British West Africa	189.6	218.3	234.5	4.6	6.4	7.9	26.1	24.0	29.4	48.7	51.6	56.2	269.0	300.3	328.0	10.0	14.2	14.8
Federation of Rhodesia and Nyasaland	105.5	109.2	125.5	0.1	0.7	1.2	2.5	3.7	5.1	3.9	8.0	10.6	112.0	121.6	142.4	8.0	8.7	11.4
Union of South Africa	332.8	354.5	329.3	15.7	13.3	18.7	47.2	53.2	60.4	94.0	106.9	107.3	489.7	527.9	515.7	173.7	204.3	202.4
Asia :																		
Bahrein, Kuwait, Qatar and Oman	46.9	38.3	50.0	9.8	4.1	2.4	3.1	3.7	6.1	11.8	12.5	12.0	71.6	58.6	70.5	17.3	17.2	28.4
Burma	47.8	46.9	31.7	0.8	1.0	1.0	10.5	8.4	10.9	16.0	13.8	12.3	75.1	70.1	55.9	2.3	3.2	3.0
Ceylon	41.2	44.3	52.6	5.5	7.3	8.3	3.1	3.4	5.2	13.5	12.4	17.6	63.3	67.4	83.7	4.4	5.2	5.7
Hong Kong	50.0	51.7	65.8	3.9	4.4	4.5	15.0	13.3	14.3	32.3	25.9	30.0	101.2	95.3	114.6	32.2	36.9	50.0
India	249.4	264.4	351.1	25.8	34.4	36.6	57.3	97.8	135.5	110.3	104.6	178.2	442.8	501.2	701.4	118.7	129.2	168.7
Iraq	52.8	51.7	68.0	2.6	7.2	12.4	11.4	14.5	20.6	20.9	25.6	35.1	87.7	99.0	136.1	20.5	24.9	28.7
Malaya and Singapore	137.4	148.4	166.4	7.6	7.9	9.9	11.2	15.3	20.9	48.8	49.9	59.0	205.0	221.5	256.2	21.6	25.6	35.0
Pakistan	103.8	76.6	64.0	15.5	7.8	10.4	19.7	22.2	21.7	35.1	22.3	31.6	174.1	128.9	127.7	23.8	39.7	106.5
Oceania:																		
Australia	590.4	603.5	529.0	16.0	24.6	16.9	43.6	52.2	54.7	108.9	123.6	106.0	758.9	803.9	706.6	131.2	142.1	124.5
New Zealand	262.6	286.2	265.2	3.4	3.3	3.5	9.5	13.7	13.3	19.7	22.4	21.7	295.2	325.6	303.7	31.7	38.6	34.9
Other overseas sterling area	218.7	221.2	244.2	3.7	6.3	8.2	11.6	19.3	26.2	57.2	60.2	70.3	291.2	307.0	348.9	53.5	65.2	87.4
XIV. Affiliated overseas areas (excluding the sterling area)	111.4	118.6	118.5	983.3	1021.7	1039.0	69.8	74.6	81.6	370.1	386.2	437.0	1534.6	1601.1	1676.1	182.7	176.8	213.5
Algeria	6.9	5.1	6.3	352.6	401.6	424.5	3.5	3.0	3.6	18.0	19.0	25.6	381.0	428.7	460.0	10.4	10.7	14.6
Belgian Congo and Ruanda Urundi	17.0	18.9	18.4	8.0	9.2	9.0	15.0	15.3	18.6	119.0	118.5	136.5	159.0	161.9	182.5	36.8	38.3	45.5
French West and Equatorial Africa	16.9	17.6	14.1	240.3	237.6	227.3	11.5	10.2	11.7	23.9	24.3	30.2	292.6	289.7	283.3	13.9	18.6	22.6
Morocco	11.5	13.0	12.8	167.1	153.2	152.2	13.4	17.4	15.3	41.5	50.3	54.1	233.5	233.9	234.4	29.4	24.4	27.8
Netherlands Antilles and Surinam	21.4	27.0	30.5	1.0	1.4	1.2	2.3	2.8	5.2	21.2	28.9	34.8	45.9	60.1	71.7	52.9	46.9	58.1
Portuguese overseas areas	21.4	21.1	23.9	5.4	3.7	3.4	16.3	16.7	15.5	63.2	62.7	70.6	106.3	104.2	113.4	22.4	17.4	19.7
Spanish overseas areas	9.0	8.8	6.8	3.9	3.4	3.0	3.7	5.2	6.1	50.2	48.1	52.0	66.8	65.5	67.9	4.3	7.3	7.9
Tunisia	2.3	1.9	1.6	86.3	91.9	94.3	1.0	1.5	2.3	9.9	11.6	10.1	99.5	106.9	108.3	4.7	3.4	5.9
Other affiliated overseas areas	5.0	5.2	4.1	118.7	119.7	124.1	3.1	2.5	3.3	23.2	22.8	23.1	150.0	150.2	154.6	7.9	9.8	11.4
XV. Other overseas countries	275.7	317.7	401.6	307.8	255.9	193.7	296.7	321.2	371.2	466.7	528.6	658.2	1346.9	1423.4	1624.7	1304.4	1310.6	1547.3
Cambodia, Laos and Viet-Nam	2.8	2.7	4.6	164.4	99.3	46.5	1.2	2.8	8.2	5.6	6.0	6.6	174.0	110.8	65.9	41.9	20.7	51.9
China (including Taiwan)	16.0	18.5	20.4	7.5	5.0	14.4	17.3	25.8	29.0	24.6	41.5	68.4	65.4	90.8	132.2	73.0	82.8	80.6
Egypt	45.3	60.4	60.8	40.3	51.0	24.1	33.3	40.1	50.2	89.3	104.0	95.2	208.2	255.5	230.3	28.5	61.6	88.9
Indonesia	21.2	21.6	36.7	6.0	9.0	6.8	31.4	34.0	51.8	83.3	89.0	121.6	141.9	153.6	216.9	56.7	54.7	92.0
Iran	16.4	32.7	51.6	4.9	9.6	17.5	35.7	32.1	38.0	19.1	25.7	30.2	76.1	100.1	137.3	36.0	42.3	52.7
Israel	14.2	18.2	21.8	3.9	5.7	6.7	38.4	42.3	49.0	38.3	40.5	47.3	94.8	106.7	124.8	55.4	63.2	69.2
Japan	26.7	27.1	40.8	13.8	9.7	11.1	32.2	30.7	38.7	60.8	49.2	61.3	133.5	116.7	151.9	542.4	472.3	579.3
Liberia	18.8	13.5	28.1	18.9	4.9	8.5	36.8	32.4	10.5	3.7	9.2	38.5	78.2	60.0	85.6	56.7	11.8	22.3
Philippines	7.1	9.6	12.0	2.7	4.4	4.6	6.5	8.3	12.8	14.3	13.6	18.9	30.6	35.9	48.3	233.0	245.9	232.5
Saudi Arabia	12.7	15.6	19.5	3.0	3.7	7.6	6.0	8.5	10.7	12.6	22.0	27.6	34.3	49.8	65.4	32.3	54.8	57.0
Sudan	31.1	27.8	24.4	4.5	2.9	1.8	4.1	3.2	3.2	11.0	8.9	7.7	50.7	42.8	37.1	0.7	1.1	0.8
Syria and Lebanon	25.7	34.0	35.8	32.8	40.2	32.8	25.5	30.0	31.3	47.9	59.2	66.6	131.9	163.4	166.5	37.7	47.4	42.5
Thailand	25.7	24.8	27.7	2.4	3.7	3.3	17.7	14.7	15.4	26.1	24.6	29.0	71.9	67.8	75.4	33.3	36.9	37.9
Rest of other overseas countries	12.0	11.2	17.4	2.7	6.8	8.0	10.6	16.3	22.4	30.1	35.2	39.3	55.4	69.5	87.1	76.8	115.1	139.7
TOTAL OVERSEAS COUNTRIES (excluding U.S. and Canada)	3165.8	3319.8	3504.6	1593.1	1605.9	1514.4	1013.5	1114.5	1298.4	2079.4	2243.6	2518.3	7851.8	8283.8	8835.7	4461.1	4534.5	5341.0

Sources and methods : See Appendix B.

[a] General imports.

[b] Excluding non-monetary gold ; see Appendix B.

[c] Austria, Belgium-Luxembourg, Denmark, Finland, Greece, Iceland, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and Yugoslavia.

[d] Imports f.o.b.

[e] Excluding re-exports.

[f] Exports excluding special categories.

Table VIII

Exports of ten western European countries and the United States by main commodity groups

Millions of current dollars, f.o.b.

Commodity group / Exporting country and period	SITC Code	United Kingdom			France			Western Germany			Italy			Belgium-Luxembourg			Netherlands		
		January-September			January-September			January-September			January-September			January-September			January-September		
		1954	1955	1956	1954	1955	1956	1954	1955	1956	1954	1955	1956	1954	1955	1956	1954	1955	1956
1. Food, drink and tobacco	0, 1, 92	336.6	357.6	368.2	419.9	518.9	459.0	76.7	106.6	136.0	281.7	288.1	332.9	63.6	69.7	96.0	541.8	589.2	623.4
of which :																			
Live animals and meat	00, 01	..	..	..	40.0	55.1	34.0	..	..	..	..	..	..	..	..	..	98.8	116.7	121.8
Dairy products	02	..	..	..	22.9	32.9	28.3	..	..	..	..	..	..	..	..	..	192.2	197.3	203.2
Cereals and preparations	04	25.8	24.3	36.0	92.6	148.5	102.4	..	..	..	34.9	22.0	38.7	..	..	..	21.0	20.6	33.2
Fruits	051-053	..	..	..	14.5	15.4	18.1	..	..	..	119.6	133.7	148.9	..	..	..	21.3	18.7	16.8
Vegetables	054, 055	..	..	..	24.1	27.5	25.6	..	..	..	72.9	74.8	78.0	..	..	..	61.8	80.6	106.8
Beverages	11	93.6	100.4	111.5	102.4	102.0	123.2	..	..	..	19.0	20.3	23.0	..	..	..	12.2	13.3	15.0
2. Mineral fuels and petroleum products	3	321.8	287.9	327.3	241.9	288.5	238.4	390.8	400.0	421.4	134.2	121.1	134.7	100.6	135.6	148.6	187.1	223.3	266.2
3. Metalliferous ores and base metals	28, 68	407.5	462.3	560.8	426.1	591.7	600.4	371.4	437.2	639.8	39.9	68.0	100.8	503.0	648.7	817.3	120.3	148.6	151.8
of which :																			
Ores and scrap	28	..	..	..	60.9	67.2	66.2	..	..	..	..	..	..	..	..	..	..	..	..
Iron and steel	681	287.5	318.6	352.9	330.0	490.8	506.5	264.2	306.9	457.2	22.1	48.2	76.9	345.5	464.7	587.6	..	..	..
4. Oil-seeds, fats and oils	22, 4	14.9	23.4	16.0	11.8	9.9	19.7	14.7	19.5	22.4	7.9	5.9	6.0	13.0	18.5	18.3	39.7	29.7	45.7
5. Textile fibres, natural	26 less 266	150.9	156.7	164.9	106.5	104.9	110.7	18.4	22.1	25.8	20.9	18.8	15.5	91.6	99.5	98.0	27.6	33.5	36.4
6. Selected construction materials	661, 662, 664, 81	91.8	106.9	112.9	40.8	46.0	41.7	58.5	71.7	79.2	6.4	8.0	10.4	62.0	74.2	89.0	14.6	18.1	18.6
7. Other raw materials	21, 23, 24 ,25, 27, 29	34.8	37.0	44.1	96.3	125.2	113.7	52.3	55.3	71.1	36.6	50.1	47.3	28.4	35.3	41.4	66.8	77.3	85.2
8. Metal manufactures	69	318.2	336.5	343.2	80.9	88.7	89.8	195.4	223.7	258.9	29.4	35.3	54.4	68.1	94.0	83.2	29.0	31.9	39.3
9. Power-generating (except electric) machinery	711	173.3	194.5	237.1	29.6	32.1	28.5	90.0	99.8	109.9	24.1	26.5	27.4	8.8	12.9	10.7	10.7	13.9	18.8
10. Agricultural machinery	712	36.2	39.7	40.1	10.5	10.0	6.2	29.8	34.8	43.0	0.9	1.0	1.1	3.0	3.4	4.6	1.4	1.7	1.7
11. Metal-working, mining, construction and other industrial machinery	714-716	556.7	583.3	657.5	140.6	153.3	163.8	593.8	657.6	811.6	68.4	83.5	102.5	53.0	57.9	68.6	44.3	54.5	73.6
12. Electric machinery	721	362.2	390.2	452.1	102.8	105.6	102.0	262.1	314.9	385.8	28.6	29.0	30.4	46.3	56.9	71.5	113.0	130.8	137.4
13. Tractors, other than steam	713	105.6	128.7	121.4	9.1	10.8	9.8	39.6	55.2	65.9	5.5	16.4	7.3	0.1	0.1	0.2	0.3	0.4	0.3
14. Railway vehicles	731	97.0	85.3	93.8	30.9	37.4	30.6	44.5	39.9	41.7	10.1	3.5	8.3	31.1	19.6	22.0	17.9	14.4	10.0
15. Road motor vehicles	732	530.6	556.8	642.8	163.5	173.4	177.0	282.6	406.3	491.8	62.2	90.2	125.9	24.9	36.2	58.3	11.1	11.1	12.9
16. Other vehicles	733-735	212.6	246.2	335.1	50.2	51.9	70.0	113.9	127.2	195.9	18.8	14.5	14.7	31.4	38.1	38.4	80.1	75.3	58.7
17. Chemicals	5	422.5	481.8	503.5	243.7	259.2	268.2	436.1	493.7	551.5	85.6	97.6	113.0	130.7	137.3	154.1	122.1	140.9	160.9
18. Textile manufactures and clothing	266, 65, 84	769.0	755.4	687.0	399.9	386.3	355.9	240.5	279.1	295.5	243.2	244.6	278.5	236.2	238.1	268.6	165.6	172.8	180.4
of which :																			
Textile yarns (incl. synthetic)	266, 651	138.3	128.2	136.9	114.4	120.9	113.3	51.8	65.5	72.0	73.5	77.4	80.1	85.1	82.4	87.0	41.0	44.3	46.2
Cotton fabrics	652	178.8	153.9	127.6	103.7	83.1	58.9	49.4	59.5	54.2	27.1	24.9	24.0	35.7	34.1	34.1	46.5	48.8	54.1
Other fabrics	65 less 651, 652	377.2	382.2	354.7	147.0	141.7	134.7	106.6	115.1	119.7	112.0	111.1	135.9	98.2	100.1	116.6	57.5	58.5	60.0
19. Paper, manufactures of wood and paper (excluding furniture)	63, 64	74.2	82.1	89.1	62.4	71.3	63.0	38.2	46.6	58.3	12.7	17.3	20.0	16.8	19.3	24.7	34.7	40.4	40.6
20. All other commodities	8 less 81, 84; 61, 62, 67, 91, 93, 663, 665, 666	604.7	630.7	733.5	348.7	369.5	360.6	396.8	490.1	574.6	91.5	127.8	110.5	139.7	184.1	233.7	103.0	127.3	143.9
of which :																			
Instruments and watches	861, 864	40.1	42.7	48.2	..	..	..	117.6	141.8	161.3	..	..	..	..	..	..	..	..	..
TOTAL EXPORTS		5 621.1	5 943.0	6 530.4	3 016.1	3 434.6	3 309.0	3 746.3	4 381.3	5 280.1	1 208.6	1 347.2	1 541.6	1 652.3	1 979.4	2 347.2	1 731.1	1 935.1	2 105.8

Commodity group / Exporting country and period	SITC Code	Norway			Sweden			Denmark			Austria			Total of countries listed [a]			United States [b]		
		January-September			January-September			January-September			January-September			January-September			January-September		
		1954	1955	1956	1954	1955	1956	1954	1955	1956	1954	1955	1956	1954	1955	1956	1954	1955	1956
1. Food, drink and tobacco	0, 1, 92	96.9	104.3	112.8	65.5	40.3	40.6	495.9	510.2	511.4	16.2	8.3	17.2	2 394.8	2 593.2	2 697.5	1227.3	1508.8	(1880)
of which :																			
Live animals and meat	00, 01	..	..	..	..	..	..	231.6	261.0	253.5	..	..	..	..	..	..	..	..	..
Dairy products	02	..	..	..	..	..	..	199.6	184.8	178.9	..	..	..	..	..	..	72.2	92.7	..
Cereals and preparations	04	..	..	..	..	..	..	12.3	13.0	22.2	..	..	..	..	..	..	541.0	713.5	..
Fruits	051-053	..	..	..	..	..	..	1.3	2.5	1.7	..	..	..	..	..	..	134.4	132.4	(180)
Vegetables	054, 055	..	..	..	..	..	..	3.3	2.5	3.1	..	..	..	..	..	..	65.2	75.3	(90)
Beverages	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2. Mineral fuels and petroleum products	3	1.2	1.5	2.1	1.6	1.4	2.1	0.3	0.8	1.1	10.0	9.3	20.7	1 389.5	1 469.4	1 562.6	699.7	675.5	(870)
3. Metalliferous ores and base metals	28, 68	82.1	103.7	140.2	193.7	213.8	271.9	14.0	16.9	20.1	76.5	90.7	116.4	2 234.5	2 781.6	3 419.5	471.0	863.2	(1080)
of which :																			
Ores and scrap	28	13.7	15.7	19.8	113.0	125.8	153.8	..	..	..	2.5	1.7	1.9	..	..	..	..	..	..
Iron and steel	681	20.4	29.8	41.3	54.1	68.3	94.7	..	..	..	61.5	73.9	94.7	..	..	..	..	..	..
4. Oil-seeds, fats and oils	22, 4	32.1	25.4	28.2	10.9	13.9	12.8	6.8	7.3	9.4	—	—	0.3	151.8	153.5	178.8	257.2	282.0	(380)
5. Textile fibres, natural	26 less 266	1.9	1.6	1.6	3.2	3.9	4.3	2.6	2.6	3.3	1.5	1.6	2.0	425.1	445.2	462.5	604.0	441.9	(470)
6. Selected construction materials	661, 662, 664, 81	0.4	0.6	0.8	10.6	11.8	14.2	4.8	7.7	7.1	15.3	16.7	20.1	305.2	361.7	394.0	94.7	109.4	(130)
7. Other raw materials	21, 23, 24, 25, 27, 29	75.1	81.1	84.4	355.8	412.8	415.0	24.3	27.3	32.1	113.2	130.7	146.0	883.6	1 032.1	1 080.3	281.5	361.6	..
8. Metal manufactures	69	5.0	6.6	8.2	52.7	58.3	63.6	9.0	9.5	9.2	21.4	23.9	30.5	809.1	908.4	980.3	199.2	225.3	..
9. Power-generating (except electric) machinery	711	0.4	0.5	0.5	13.9	15.1	18.2	12.5	19.5	18.1	6.9	10.6	17.2	370.2	425.4	486.4	124.3	136.7	..
10. Agricultural machinery	712	0.1	0.2	0.4	13.2	12.2	14.2	4.1	5.2	6.1	0.5	0.8	0.7	99.7	109.0	118.1	103.3	98.1	(100)
11. Metal-working, mining, construction and other industrial machinery	714-716	4.3	5.4	7.7	89.1	94.9	122.0	38.6	46.1	53.0	16.0	17.5	22.4	1 604.8	1 754.0	2 082.7	1076.5	1153.5	(1530)
12. Electric machinery	721	1.8	3.0	3.5	43.1	45.5	54.7	17.9	21.9	26.1	11.8	13.4	18.3	989.6	1 111.2	1 281.8	391.2	423.3	..
13. Tractors, other than steam	713	—	—	0.1	2.9	3.6	4.5	—	—	0.1	2.2	2.5	3.0	165.3	217.7	212.6	213.2	214.6	(230)
14. Railway vehicles	731	—	—	0.1	1.9	0.5	5.4	0.2	—	1.2	5.7	3.5	7.8	239.3	204.1	220.9	97.0	75.8	(70)
15. Road motor vehicles	732	—	—	0.1	19.2	25.1	35.3	2.6	3.1	5.1	7.4	11.2	9.1	1 104.1	1 313.4	1 558.3	762.1	906.7	(980)
16. Other vehicles	733-735	19.1	24.6	54.6	77.7	79.8	71.6	9.3	18.4	26.0	2.7	3.5	3.6	615.8	679.5	868.6	173.5	158.8	(160)
17. Chemicals	5	41.7	43.9	44.6	24.0	25.3	31.3	17.2	18.7	24.0	22.6	22.6	26.4	1 546.2	1 721.0	1 877.5	735.0	814.4	(950)
18. Textile manufactures and clothing	266, 65, 84	7.3	7.0	8.7	14.1	14.8	17.5	11.7	13.6	15.5	46.8	55.5	67.6	2 134.3	2 167.2	2 175.2	412.1	408.8	(460)
of which :																			
Textile yarns (incl. synthetic)	266, 651	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cotton fabrics	652	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	136.9	125.9	..
Other fabrics	65 less 651, 652	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
19. Paper, manufactures of wood and paper (excluding furniture)	63, 64	50.4	54.0	57.9	113.7	130.0	151.7	4.4	5.8	6.3	37.1	43.9	49.5	444.6	510.7	561.1	138.3	172.1	(180)
20. All other commodities	8 less 81, 84; 61, 62, 67, 91, 93, 663, 665, 666	6.7	8.2	9.3	31.0	38.1	44.7	12.8	17.0	20.8	30.9	34.6	39.7	1 765.8	2 027.4	2 271.3	683.8	829.9	..
of which :																			
Instruments and watches	861, 864	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTAL EXPORTS		426.5	471.6	565.8	1 137.8	1 241.1	1 395.6	689.0	751.6	796.0	444.7	500.8	618.5	19 673.3	21 985.7	24 490.0	8 744.9	9 860.4	11 756.1

Sources : National trade statistics and *Foreign Trade Statistical Bulletins*, Series IV, OEEC, Paris.

[a] Including their trade with one another.

[b] Excluding special categories. Figures for January-September of 1954 and 1955 are not fully comparable with those of other countries. Figures for January-September of 1956 are estimates based on incomplete rearrangement of the national nomenclature.

Exports of selected European countries and the United

Millions of

Exporting country and commodity group / Area of destination and period	North America			of which : United States			Canada			Latin America			Overseas Sterlin Area [a]		
	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1
UNITED KINGDOM															
1. Food, drink and tobacco	85.9	89.6	98.9	67.6	71.4	80.4	18.3	18.2	18.5	14.6	15.6	14.8	177.9	198.0	21
2. Mineral fuels and petroleum products	4.9	3.8	3.8	0.5	0.2	0.1	4.4	3.6	3.7	7.9	7.5	2.7	71.9	69.8	3
3. Metallic ores and base metals	66.2	47.2	48.5	39.9	25.0	28.5	26.3	22.2	20.0	18.0	25.3	26.8	163.1	194.1	20
of which : Iron and steel	*33.1*	*27.9*	*23.6*	*11.3*	*9.2*	*7.4*	*21.8*	*18.7*	*16.2*	*13.3*	*20.2*	*22.7*	*128.0*	*160.4*	*17*
4. Oil-seeds, fats and oils	6.6	5.1	3.5	5.6	3.7	1.8	1.0	1.4	1.7	0.2	0.5	0.6	4.5	4.2	
5. Textile fibres, natural	34.0	31.4	42.9	17.6	18.6	27.2	16.4	12.8	15.7	1.1	1.5	0.8	17.7	19.0	2
6. Selected construction materials	10.6	10.0	18.2	3.3	2.6	8.5	7.3	7.4	9.7	3.6	5.1	5.2	65.9	65.8	7
7. Other raw materials	6.9	6.2	7.2	5.8	5.1	5.5	1.1	1.1	1.7	0.4	0.8	0.6	7.4	8.9	1
8. Metal manufactures	26.6	25.2	22.1	9.7	10.8	10.3	16.9	14.4	11.8	9.4	12.1	11.8	162.8	152.2	16
9. Power-generating (except electric) machinery	16.8	15.9	14.1	2.2	2.1	3.3	14.6	13.8	10.8	6.0	8.5	8.8	81.6	87.2	8
10. Agricultural machinery	2.5	2.2	2.1	1.4	1.2	1.2	1.1	1.0	0.9	1.3	1.8	1.9	13.3	14.9	1
11. Metal-working, mining, construction and other industrial machinery	46.8	43.7	43.4	20.6	21.9	20.0	26.2	21.8	23.4	35.8	28.9	32.0	258.4	265.0	26
12. Electric machinery	24.4	24.7	30.5	5.4	6.1	12.0	19.0	18.6	18.5	15.3	17.6	18.3	231.5	221.9	24
13. Tractors, other than steam	5.9	10.7	8.0	1.8	7.2	5.5	4.1	3.5	2.5	4.4	5.4	6.3	32.4	39.6	4
14. Railway vehicles	6.3	4.5	3.7	—	—	0.1	6.3	4.5	3.6	7.3	4.0	2.9	57.1	66.9	5
15. Road motor vehicles [f]	64.8	50.0	44.2	33.0	32.6	28.2	31.8	17.4	16.0	19.0	18.1	16.5	255.3	306.5	35
16. Other vehicles [f]	23.0	21.0	42.4	10.9	13.2	23.9	12.1	7.8	18.5	31.3	22.0	16.1	82.2	77.4	8
17. Chemicals	41.4	40.3	38.9	23.7	20.4	19.2	17.7	19.9	19.7	26.3	43.0	35.1	208.1	277.2	27
18. Textile manufactures and clothing	149.7	123.3	136.4	73.6	64.6	75.8	76.1	58.7	60.6	35.2	37.4	30.6	470.3	469.6	41
of which : Textile yarns (including synthetic fibres)	*15.1*	*12.2*	*19.1*	*3.4*	*3.8*	*8.7*	*11.7*	*8.4*	*10.4*	*13.5*	*13.4*	*10.6*	*68.1*	*68.6*	*7*
Cotton fabrics	*13.1*	*10.7*	*11.0*	*7.0*	*5.8*	*6.7*	*6.1*	*4.9*	*4.3*	*2.7*	*3.0*	*2.3*	*175.3*	*159.0*	*13*
Other fabrics	*100.1*	*84.5*	*94.0*	*50.4*	*45.5*	*52.7*	*49.7*	*39.0*	*41.3*	*18.2*	*20.2*	*17.2*	*198.0*	*212.5*	*18*
19. Paper, manufactures of wood and paper (excluding furniture)	3.7	5.0	5.0	2.6	3.7	3.4	1.1	1.3	1.6	1.4	2.5	2.8	43.5	52.5	5
20. All other commodities	107.8	113.4	126.9	50.3	51.5	68.4	57.5	61.9	58.5	16.0	20.7	20.0	282.3	318.0	33
of which : Instruments and watches	*4.3*	*3.7*	*3.3*	*2.1*	*1.7*	*1.8*	*2.2*	*2.0*	*1.5*	*1.3*	*1.8*	*1.8*	*19.3*	*22.0*	*2*
Total exports	734.8	673.2	740.7	375.5	361.9	423.3	359.3	311.3	317.4	254.5	278.3	254.6	2 687.2	2 908.7	2 97
FRANCE															
1. Food, drink and tobacco	36.2	44.2	43.3	30.3	37.7	37.6	5.9	6.5	5.7	16.3	13.4	9.7	11.4	28.6	3
of which : Cereals and preparations	—	*0.1*	*0.3*	—	*0.1*	*0.3*	—	—	—	*1.1*	*0.1*	*0.1*	*0.8*	*3.6*	
Fruits and vegetables	*5.3*	*5.8*	*6.2*	*4.1*	*4.9*	*5.5*	*1.2*	*0.9*	*0.7*	*1.2*	*0.7*	*1.3*	*0.7*	*0.9*	
Beverages	*23.3*	*26.0*	*25.1*	*19.1*	*21.3*	*20.9*	*4.2*	*4.7*	*4.2*	*9.1*	*10.0*	*6.3*	*9.4*	*10.6*	*1*
2. Mineral fuels and petroleum products	1.3	0.3	0.1	1.3	0.3	0.1	—	—	—	1.1	1.0	1.3	19.6	19.7	1
3. Metallic ores and base metals	36.0	17.3	25.1	34.5	15.7	22.9	1.5	1.6	2.2	36.8	46.6	45.5	20.8	14.7	3
of which : Ores and scrap	*2.5*	*1.2*	*0.3*	*2.5*	*1.2*	*0.3*	—	—	—	—	—	—	*0.2*	*0.1*	
Iron and steel	*26.7*	*12.7*	*20.6*	*25.2*	*11.1*	*18.4*	*1.5*	*1.6*	*2.2*	*34.1*	*43.5*	*44.6*	*20.5*	*14.2*	*2*
4. Oil-seeds, fats and oils	1.5	1.1	0.2	1.5	1.1	0.2	—	—	—	3.0	2.6	0.6	0.7	0.6	
5. Textile fibres, natural	4.7	4.4	7.2	4.3	3.9	6.9	0.4	0.5	0.3	2.7	6.4	5.9	0.3	0.2	
6. Selected construction materials	2.4	1.9	3.4	1.9	1.5	2.6	0.5	0.4	0.8	1.9	2.6	2.9	5.9	0.9	
7. Other raw materials	9.1	6.8	9.2	8.4	6.5	8.7	0.7	0.3	0.5	1.5	2.1	1.8	0.3	0.3	
8. Metal manufactures	2.2	2.8	2.9	1.7	2.4	2.6	0.5	0.4	0.3	12.4	10.7	8.3	3.9	2.6	
9. Power-generating (except electric) machinery	0.8	0.8	0.7	0.8	0.8	0.7	—	—	—	4.5	4.4	4.3	0.8	1.1	
10. Agricultural machinery	—	—	—	—	—	—	—	—	—	0.6	0.4	0.3	0.2	0.2	
11. Metal-working, mining, construction and other industrial machinery	4.7	3.5	4.5	4.2	3.0	4.0	0.5	0.5	0.5	26.7	23.7	23.9	2.6	3.0	
12. Electric machinery	0.8	1.8	1.3	0.6	1.7	1.1	0.2	0.1	0.2	5.9	6.9	8.2	0.8	0.8	
13. Tractors, other than steam	—	—	0.2	—	—	0.2	—	—	—	3.3	3.4	4.6	0.3	0.3	
14. Railway vehicles	—	—	—	—	—	—	—	—	—	2.9	3.4	1.2	4.0	5.8	
15. Road motor vehicles	0.7	1.6	3.3	0.6	1.5	3.1	0.1	0.1	0.2	8.2	8.3	5.8	3.0	6.0	
16. Other vehicles	3.0	1.4	2.1	0.7	1.3	1.9	2.3	0.1	0.2	2.5	2.3	15.2	3.6	5.7	
17. Chemicals	18.6	17.2	22.0	16.7	15.6	19.5	1.9	1.6	2.5	30.8	30.8	28.4	14.8	17.7	1
18. Textile manufactures and clothing	35.4	33.1	38.9	31.3	29.4	35.3	4.1	3.7	3.6	17.9	22.5	15.2	15.7	21.4	2
of which : Textile yarns (including synthetic fibres)	*5.2*	*6.4*	*8.5*	*4.6*	*5.7*	*7.7*	*0.6*	*0.7*	*0.8*	*12.7*	*15.7*	*9.8*	*5.4*	*7.4*	*1*
Cotton fabrics	*1.0*	*1.0*	*1.2*	*0.8*	*0.9*	*1.1*	*0.2*	*0.1*	*0.1*	*0.1*	*0.4*	*0.3*	*0.9*	*1.6*	
Other fabrics	*23.2*	*19.7*	*21.8*	*20.6*	*17.5*	*19.8*	*2.6*	*2.2*	*2.0*	*4.3*	*5.5*	*4.2*	*8.6*	*11.4*	*1*
19. Paper, manufactures of wood and paper (excluding furniture)	1.9	1.3	1.4	1.7	1.1	1.0	0.2	0.2	0.4	0.9	1.8	2.7	1.1	1.6	
20. All other commodities	24.9	28.2	37.6	20.8	23.8	32.7	4.1	4.4	4.9	14.3	17.3	15.2	8.6	11.6	1
Total exports	184.2	167.7	203.4	161.3	147.3	181.1	22.9	20.4	22.3	194.2	210.6	201.0	118.4	142.8	16

Sources : See Appendix B.

[a] Including British colonies.

[b] Excluding the sterling

[c] For all countries except France and the U.S.A. trade with Indochina in 1953 and 1954 included in figures for " Affiliated overseas territories ". For France and the U trade with Indochina for all years are included in " Other Overseas Countries ".

[d] Including unallocated exports.

[e] For 1953 Liberia not included.

in commodity groups and by area of destination

prices, f.o.b.

Affiliated Overseas erritories *b, c*			Other Overseas Countries *c*			Total Overseas Countries *d*			Western Europe			Eastern Europe			Total World			of which: Dollar Area *e*			Group
	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	
9	6.5	7.4	30.6	23.4	19.7	315.9	333.1	357.1	89.9	92.3	90.1	4.7	11.5	10.3	410.5	436.9	457.5	95.4	100.1	109.8	1.
5	29.8	23.1	8.6	9.9	6.2	108.8	120.8	67.3	241.5	252.5	250.6	—	—	—	350.3	373.3	317.9	5.1	4.0	4.1	2.
3	2.1	2.9	16.9	15.9	23.7	267.5	284.6	308.9	135.5	137.3	143.5	1.1	6.3	20.2	404.1	428.2	472.6	76.7	57.7	61.5	3.
8	*1.7*	*2.5*	*12.9*	*12.6*	*20.1*	*190.1*	*222.8*	*241.9*	*78.5*	*74.7*	*84.9*	*0.5*	*1.2*	*0.3*	*269.1*	*298.7*	*327.1*	*41.8*	*35.8*	*34.7*	
1	0.6	0.1	0.8	1.3	1.2	12.2	11.7	10.5	7.2	11.2	14.5	0.5	0.4	2.0	19.9	23.3	27.0	6.8	5.5	3.9	4.
1	0.1	0.1	19.4	15.0	22.6	72.3	67.0	87.3	83.2	88.9	91.5	5.0	13.9	10.6	160.5	169.8	189.4	34.9	32.7	43.6	5.
2	1.4	1.4	4.3	4.5	4.5	85.6	86.8	102.4	13.3	14.6	17.1	—	—	—	98.9	101.4	119.5	13.1	13.0	21.8	6.
2	0.3	0.3	0.8	0.8	1.3	15.7	17.0	20.4	19.4	23.7	25.9	0.4	0.3	0.5	35.5	41.0	46.8	7.0	6.4	7.4	7.
5	4.3	3.1	12.8	11.7	15.9	219.1	205.5	213.0	93.2	104.6	112.5	0.2	0.2	0.1	312.5	310.3	325.6	33.3	33.1	30.5	8.
7	2.9	3.0	10.1	11.9	17.1	118.2	126.4	131.8	42.5	47.7	64.3	0.5	1.0	0.6	161.2	175.1	196.7	20.3	21.3	19.8	9.
3	1.3	1.2	1.0	1.4	2.0	19.4	21.6	21.7	12.9	13.1	13.6	—	0.1	0.9	32.3	34.8	36.2	2.9	3.0	3.4	10.
4	9.5	10.1	28.9	28.2	28.3	382.3	375.3	380.2	173.5	178.4	189.0	3.6	4.9	13.8	559.4	558.6	583.0	64.0	62.9	62.9	11.
6	3.4	3.4	17.5	17.7	21.3	292.3	285.3	322.4	81.1	90.6	92.7	8.0	7.4	9.9	381.4	383.3	425.0	31.9	34.6	40.9	12.
9	2.6	3.0	1.7	3.0	4.8	47.3	61.3	69.5	45.5	45.2	51.3	—	—	—	92.8	106.5	120.8	7.5	12.8	5.1	13.
3	1.6	0.9	7.0	5.6	4.9	79.0	82.6	71.0	16.6	11.6	10.6	1.2	0.3	0.1	96.8	94.5	81.7	6.8	5.4	4.0	14.
7	10.7	10.3	22.2	18.9	25.6	371.0	404.2	450.9	153.9	177.1	158.0	0.9	0.5	1.1	525.8	581.8	610.0	74.5	59.9	54.1	15.
8	4.0	4.2	38.1	41.5	32.0	179.4	165.9	183.6	73.3	91.0	98.9	—	—	—	252.7	256.9	282.5	42.2	69.4	65.8	16.
6	11.7	14.2	31.7	40.6	51.0	315.1	412.8	417.7	132.1	172.0	166.2	2.6	3.6	3.4	449.8	588.4	587.3	55.6	58.2	55.3	17.
2	17.4	19.4	37.0	37.2	44.0	705.4	684.9	641.1	219.0	207.8	193.3	0.8	3.2	2.8	925.2	895.9	837.2	171.3	145.9	157.7	18.
2	*0.3*	*0.2*	*9.4*	*9.6*	*10.4*	*106.3*	*104.1*	*110.7*	*63.5*	*63.5*	*56.9*	*0.7*	*2.8*	*2.1*	*170.5*	*170.4*	*169.7*	*23.1*	*20.4*	*26.0*	
3	*12.7*	*14.7*	*10.2*	*7.7*	*7.8*	*210.6*	*193.1*	*166.7*	*31.2*	*27.8*	*22.7*	—	—	*0.1*	*241.8*	*220.9*	*189.5*	*14.8*	*12.5*	*13.0*	
0	*3.6*	*3.9*	*15.8*	*18.1*	*24.6*	*335.1*	*338.9*	*329.1*	*94.7*	*95.5*	*98.0*	*0.1*	*0.4*	*0.6*	*429.9*	*434.8*	*427.7*	*111.3*	*96.5*	*106.1*	
3	0.4	0.4	1.6	1.9	2.1	50.5	62.3	65.1	10.5	12.9	13.8	—	0.3	0.1	61.0	75.5	79.0	4.3	5.7	5.5	19.
1	9.7	9.3	29.9	29.8	34.4	444.1	491.6	527.9	195.8	213.2	217.7	6.4	5.4	5.7	646.3	710.2	751.3	117.5	124.2	138.3	20.
5	*0.5*	*0.7*	*2.4*	*2.5*	*2.9*	*27.8*	*30.5*	*34.4*	*12.4*	*13.7*	*14.7*	*0.3*	*0.1*	*0.2*	*40.5*	*44.3*	*49.3*	*5.1*	*4.5*	*4.1*	
7	120.3	117.8	320.9	320.2	362.6	4 101.1	4 300.7	4 449.8	1 839.9	1 985.7	2 015.1	35.9	59.3	82.1	5 976.9	6 345.7	6 547.0	871.1	855.8	895.4	Total exports
1	229.6	231.9	48.5	61.9	34.1	310.5 *g*	377.7 *g*	353.0 *g*	167.7	288.8	394.1	1.3	25.3	65.2	482.5 *h*	694.7 *h*	814.8 *h*	44.8	54.6	50.6	1.
8	*38.5*	*38.4*	*10.5*	*20.5*	*10.7*	*36.2*	*62.8*	*56.3*	*23.1*	*84.1*	*152.1*	—	*11.3*	*49.1*	*59.3*	*158.2*	*257.5*	—	*0.2*	*0.4*	
8	*19.3*	*20.7*	*4.9*	*5.6*	*2.1*	*32.9 g*	*32.3 g*	*31.8 g*	*36.5*	*41.3*	*50.3*	*0.4*	*0.3*	*0.6*	*70.4 h*	*74.6 h*	*83.3 h*	*5.5*	*6.0*	*6.3*	
8	*45.6*	*33.3*	*15.5*	*14.0*	*6.6*	*102.1 g*	*106.2 g*	*82.1 g*	*75.8*	*91.4*	*83.0*	*0.4*	*1.7*	*0.8*	*178.9 h*	*200.2 h*	*166.7 h*	*30.9*	*35.2*	*30.9*	
4	77.8	85.2	31.3	24.2	15.3	128.7 *i*	123.0 *i*	112.7 *i*	155.9	160.2	233.4	0.1	0.2	—	297.0 *j*	294.6 *j*	357.0 *j*	1.3	0.3	0.2	2.
8	56.2	62.4	37.7	30.8	38.8	181.1	165.6	202.1	201.6	254.3	337.5	20.1	11.9	20.0	402.8	431.8	559.6	51.2	35.1	44.6	3.
1	—	—	*0.2*	—	—	*3.0*	*1.3*	*0.4*	*50.8*	*63.2*	*68.8*	*0.1*	—	*0.1*	*53.9*	*64.5*	*69.3*	*2.5*	*1.2*	*0.3*	
9	*50.8*	*57.6*	*35.6*	*28.8*	*37.5*	*161.8*	*150.0*	*189.8*	*134.5*	*173.5*	*249.8*	*19.2*	*11.2*	*19.8*	*315.5*	*334.7*	*459.4*	*41.7*	*30.1*	*40.0*	
.5	6.5	9.2	1.9	1.3	0.7	19.6	12.1	11.2	6.3	3.4	3.2	0.3	0.1	0.2	26.2	15.6	14.6	1.6	1.1	3.7	4.
.0	2.5	2.5	13.7	6.1	8.4	23.4	19.6	24.4	105.4	127.6	139.3	2.0	3.2	7.2	130.8	150.4	170.9	4.8	4.5	7.7	5.
.5	25.5	22.4	4.2	4.5	4.7	37.9	35.4	34.6	10.5	13.6	14.3	0.2	0.2	0.4	48.6	49.2	49.3	3.4	2.8	4.5	6.
.2	14.9	16.9	2.2	2.7	2.6	28.3	26.8	31.1	71.3	81.7	112.5	0.9	1.1	1.2	100.5	109.6	144.8	9.2	7.1	9.5	7.
.0	61.9	51.1	16.8	13.7	10.2	82.3	91.7	77.0	15.9	19.3	21.0	0.8	0.5	1.5	99.0	111.5	99.5	7.1	6.1	7.0	8.
.1	13.5	13.5	4.2	2.9	2.8	23.4	22.7	23.0	9.4	7.9	10.3	0.4	0.3	0.8	33.2	30.9	34.1	2.0	1.9	1.8	9.
.6	5.2	4.4	0.2	0.1	0.3	5.6	5.9	5.4	4.0	3.8	3.5	0.1	—	—	9.7	9.7	8.9	0.2	—	—	10.
.2	46.9	42.9	12.8	11.2	8.3	95.0	88.3	85.5	62.2	55.1	66.1	3.1	2.3	6.7	160.3	145.7	158.3	16.1	12.7	8.6	11.
.8	40.2	39.1	11.6	10.4	8.5	57.9	60.1	58.2	21.6	31.8	29.6	1.0	2.2	1.1	80.5	94.1	88.9	3.1	4.4	3.1	12.
.3	3.6	3.3	0.2	—	0.1	6.1	7.3	8.2	1.6	1.4	2.1	—	—	—	7.7	8.7	10.3	0.3	—	0.3	13.
.2	7.2	6.7	0.5	3.4	1.6	15.6	19.8	11.4	8.8	6.0	19.0	0.1	—	0.1	24.5	25.8	30.5	2.1	0.5	1.1	14.
.7	79.5	86.2	13.1	13.7	12.4	91.7	109.1	117.5	42.1	52.0	58.5	0.8	1.2	1.9	134.6	162.3	177.9	2.2	2.7	4.7	15.
.5	10.2	12.8	5.9	20.0	8.2	23.5	39.6	40.7	3.9	7.3	7.9	—	0.7	—	27.4	47.6	48.6	3.5	18.2	11.8	16.
.9	103.8	121.6	39.3	53.6	45.2	188.4	223.5	237.5	102.1	131.9	155.4	5.0	5.9	6.9	295.5	361.3	399.8	24.7	24.7	29.1	17.
.7	195.4	182.4	92.9	80.2	49.5	329.6	352.6	312.1	139.1	162.9	193.6	3.2	8.8	5.0	471.9	524.3	510.7	42.5	42.3	47.5	18.
.0	*13.5*	*13.4*	*14.9*	*17.0*	*14.5*	*50.2*	*60.0*	*56.9*	*73.9*	*85.7*	*111.0*	*1.8*	*3.2*	*2.8*	*125.9*	*148.9*	*170.7*	*9.8*	*12.9*	*14.2*	
.3	*92.0*	*70.8*	*42.1*	*36.5*	*17.6*	*120.4*	*131.5*	*91.4*	*7.4*	*8.4*	*8.1*	—	—	—	*127.8*	*139.9*	*99.5*	*1.0*	*1.0*	*1.3*	
.7	*64.6*	*65.7*	*34.2*	*24.9*	*15.6*	*130.0*	*126.1*	*120.0*	*47.0*	*56.3*	*58.7*	*1.3*	*5.5*	*2.0*	*178.3*	*187.9*	*180.7*	*25.2*	*21.9*	*23.8*	
.6	25.5	29.6	8.0	7.8	6.2	37.5	38.0	41.9	19.1	24.4	30.2	0.3	1.4	0.8	56.9	63.8	72.9	2.3	1.8	2.0	19.
.7	194.1	189.3	42.4	42.7	27.4	267.9	293.9	282.7	93.5	111.4	121.9	1.3	2.7	3.2	362.7	408.0	407.8	31.0	36.5	44.6	20.
.8	1 200.0	1 213.4	387.4	391.2	285.3	1 954.0	2 112.7	2 070.2	1 242.0	1 544.8	1 953.4	41.0	68.0	122.2	3 252.3	3 739.6	4 159.2	253.4	257.3	282.4	Total exports

res for 1953 are not fully comparable with the following periods; in SITC item 732-06 (part of road motor vehicles) has been included oup 16 " Other vehicles ".

uding ship's stores.

h Including ship's stores.

i Excluding bunkers.

j Including bunkers.

Exports of selected European countries and the United

Millions of

Area of destination and period / Exporting country and commodity group	North America			of which: United States			of which: Canada			Latin America			Overseas Sterling Area [a]	
	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954
WESTERN GERMANY														
1. Food, drink and tobacco	17.3	19.9	19.9	17.1	19.4	19.2	0.2	0.5	0.7	3.1	3.6	3.2	4.8	7.8
2. Mineral fuels and petroleum products	2.6	3.1	3.0	2.6	3.1	3.0	—	—	—	0.4	1.0	0.9	1.2	1.8
3. Metallic ores and base metals	34.9	34.3	30.0	34.3	32.5	28.2	0.6	1.8	1.8	32.6	42.5	40.3	12.1	16.0
of which : Iron and steel	*23.9*	*18.0*	*11.1*	*23.3*	*16.3*	*9.7*	*0.6*	*1.7*	*1.4*	*26.2*	*37.6*	*37.0*	*11.0*	*13.0*
4. Oil-seeds, fats and oils	1.9	2.4	0.8	1.9	2.1	0.8	—	0.3	—	1.9	1.4	1.2	0.4	1.3
5. Textile fibres, natural	1.9	1.1	1.5	1.9	1.0	1.4	—	0.1	0.1	0.1	0.1	0.1	—	—
6. Selected construction materials	4.0	5.8	12.2	2.8	3.2	7.9	1.2	2.6	4.3	14.6	8.7	9.7	5.2	5.6
7. Other raw materials	5.6	6.3	6.3	5.5	6.2	6.1	0.1	0.1	0.2	1.0	1.2	1.1	0.7	0.8
8. Metal manufactures	16.1	26.0	29.3	13.4	21.9	25.0	2.7	4.1	4.3	29.6	37.1	31.8	21.6	25.7
9. Power-generating (except electric) machinery	0.7	0.5	0.8	0.6	0.4	0.7	0.1	0.1	0.1	12.1	11.6	12.4	8.3	8.6
10. Agricultural machinery	0.1	0.3	0.4	—	0.1	0.3	0.1	0.2	0.1	2.3	2.1	2.0	1.0	1.3
11. Metal-working, mining, construction and other industrial machinery	32.7	34.0	43.7	28.2	28.2	36.8	4.5	5.8	6.9	69.4	71.0	72.6	59.1	50.5
12. Electric machinery	3.1	5.2	8.7	2.7	4.3	7.4	0.4	0.9	1.3	33.8	54.4	46.4	18.3	22.4
13. Tractors, other than steam	—	0.1	0.1	—	0.1	0.1	—	—	—	8.2	5.2	18.3	1.8	2.7
14. Railway vehicles	—	—	0.1	—	—	0.1	—	—	—	5.2	9.5	5.0	16.0	16.8
15. Road motor vehicles	4.7	10.5	36.1	3.2	8.3	30.6	1.5	2.2	5.5	25.4	26.8	27.1	6.5	18.9
16. Other vehicles	2.0	6.4	10.3	2.0	6.3	10.1	—	0.1	0.2	7.9	11.0	12.9	2.5	6.9
17. Chemicals	45.2	31.8	40.3	42.0	28.4	34.1	3.2	3.4	6.2	53.7	76.0	70.2	50.4	65.0
18. Textile manufactures and clothing	17.7	15.3	26.1	14.7	12.4	22.8	3.0	2.9	3.3	9.2	12.4	11.8	32.4	44.4
of which : Textile yarns (including synthetic fibres)	*5.7*	*3.8*	*11.2*	*5.5*	*3.5*	*10.8*	*0.2*	*0.3*	*0.4*	*4.2*	*4.9*	*4.2*	*4.8*	*8.3*
Cotton fabrics	*1.7*	*1.6*	*2.0*	*0.8*	*1.0*	*1.4*	*0.9*	*0.6*	*0.6*	*0.6*	*1.0*	*0.9*	*9.8*	*10.0*
Other fabrics	*8.1*	*6.5*	*8.6*	*6.8*	*5.3*	*7.0*	*1.3*	*1.2*	*1.6*	*3.5*	*4.8*	*5.1*	*16.6*	*23.7*
19. Paper, manufactures of wood and paper (excluding furniture)	2.0	3.2	4.0	1.6	2.9	3.7	0.4	0.3	0.3	2.3	3.4	3.8	1.6	2.3
20. All other commodities	80.8	78.3	95.2	73.5	68.9	84.4	7.3	9.4	10.8	35.6	50.5	45.8	33.3	47.6
of which : Instruments and watches	*33.6*	*29.1*	*35.7*	*30.3*	*24.9*	*30.7*	*3.3*	*4.2*	*5.0*	*10.3*	*13.8*	*14.1*	*15.2*	*17.1*
TOTAL EXPORTS	273.3	284.5	368.8	248.0	249.7	322.7	25.3	34.8	46.1	348.4	429.5	416.6	277.2	346.4
ITALY [j]														
1. Food, drink and tobacco	29.2	30.4	32.4	25.9	27.1	27.8	3.3	3.3	4.6	4.4	6.4	6.4	10.5	10.3
of which : Cereals and preparations	*0.6*	*0.8*	*1.6*	*0.4*	*0.8*	*1.0*	*0.2*	—	*0.6*	—	*0.1*	*0.1*	*1.9*	*1.8*
Fruits	*6.9*	*4.0*	*4.2*	*5.1*	*2.7*	*2.7*	*1.8*	*1.3*	*1.5*	*0.9*	*1.2*	*0.9*	*3.2*	*2.0*
Vegetables	*6.0*	*7.6*	*8.6*	*5.5*	*6.6*	*7.2*	*0.5*	*1.0*	*1.4*	*0.9*	*1.6*	*1.2*	*3.6*	*4.6*
2. Mineral fuels and petroleum products	0.8	0.6	0.3	0.8	0.6	0.3	—	—	—	—	—	—	40.2	36.1
3. Metallic ores and base metals	7.2	4.4	4.9	6.7	3.7	4.0	0.5	0.7	0.9	4.8	14.2	12.7	4.3	2.9
of which : Iron and steel	*3.7*	*2.8*	*2.1*	*3.2*	*2.1*	*1.2*	*0.5*	*0.7*	*0.9*	*2.5*	*8.9*	*11.4*	*3.6*	*2.0*
4. Oil-seeds, fats and oils	4.1	4.9	4.4	3.8	4.7	4.1	0.3	0.2	0.3	2.2	2.5	0.7	0.7	0.6
5. Textile fibres, natural	2.2	2.4	2.2	2.2	2.3	2.2	—	0.1	—	1.0	1.5	1.0	0.1	0.2
6. Selected construction materials	2.1	2.1	3.1	1.8	1.9	2.9	0.3	0.2	0.2	2.1	2.3	2.2	0.8	0.8
7. Other raw materials	6.2	5.5	8.3	5.7	5.1	7.8	0.5	0.4	0.5	2.8	5.7	4.0	1.1	1.3
8. Metal manufactures	3.7	6.5	4.2	3.4	5.8	3.6	0.3	0.7	0.6	2.4	4.7	6.1	2.2	3.4
9. Power-generating (except electric) machinery	0.8	0.4	0.5	0.8	0.4	0.5	—	—	—	3.1	5.1	5.7	0.4	0.8
10. Agricultural machinery	—	—	—	—	—	—	—	—	—	0.5	0.3	0.5	0.1	0.1
11. Metal-working, mining, construction and other industrial machinery	11.7	8.5	9.1	10.5	7.7	8.0	1.2	0.8	1.1	21.6	23.4	29.9	4.2	5.6
12. Electric machinery	0.6	0.4	0.6	0.6	0.4	0.6	—	—	—	9.5	6.2	9.3	1.9	1.5
13. Tractors, other than steam	—	—	—	—	—	—	—	—	—	7.6	5.3	10.1	0.3	0.2
14. Railway vehicles	—	—	—	—	—	—	—	—	—	—	—	—	3.1	3.8
15. Road motor vehicles	2.4	1.7	2.9	2.4	1.7	2.9	—	—	—	4.7	15.8	23.1	3.9	4.2
16. Other vehicles	1.4	0.3	3.9	1.4	0.3	3.9	—	—	—	2.8	1.6	1.0	1.1	0.2
17. Chemicals	9.6	9.7	10.4	9.3	9.4	9.9	0.3	0.3	0.5	5.1	10.1	10.0	5.4	7.2
18. Textile manufactures and clothing	32.8	27.9	38.3	29.5	25.5	35.4	3.3	2.4	2.9	11.6	15.2	15.0	85.7	83.8
of which : Textile yarns (including synthetic fibres)	*2.7*	*1.8*	*9.3*	*2.5*	*1.6*	*9.1*	*0.2*	*0.2*	*0.2*	*2.6*	*4.8*	*6.9*	*23.1*	*28.6*
Cotton fabrics	*3.0*	*3.3*	*3.1*	*2.9*	*3.2*	*2.9*	*0.1*	*0.1*	*0.2*	*1.0*	*1.2*	*1.2*	*5.8*	*5.1*
Other fabrics	*20.9*	*17.2*	*18.6*	*18.5*	*15.6*	*16.7*	*2.4*	*1.6*	*1.9*	*6.5*	*7.2*	*5.5*	*52.8*	*47.1*
19. Paper, manufactures of wood and paper (excluding furniture)	1.7	1.6	1.7	1.6	1.5	1.6	0.1	0.1	0.1	0.7	0.9	0.9	1.5	2.2
20. All other commodities	15.0	7.3	9.9	13.9	6.8	9.3	1.1	0.5	0.6	4.7	4.2	4.2	5.4	4.0
TOTAL EXPORTS	131.5	114.6	137.1	120.3	104.9	124.8	11.2	9.7	12.3	91.6	125.4	142.8	172.9	169.2

Sources : See Appendix B. [a] Including British colonies. [b] Excluding the sterling area. [c] See footnote [c] on page A. 14. [d] Including unallocated e

Figures for 1953 for Italy are revised in conformity with new series of volume-indices calculated by Central Statistical Institute, Italy.

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in commodity groups and by area of destination

0 prices, f.o.b.

FFILIATED OVERSEAS RITORIES [b], [c]		OTHER OVERSEAS COUNTRIES [c]			TOTAL OVERSEAS COUNTRIES [d]			WESTERN EUROPE			EASTERN EUROPE			TOTAL WORLD			of which: DOLLAR AREA [e]			Group
1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	
1.9	2.1	4.2	4.7	5.9	30.8[f]	37.9[f]	40.5[f]	62.1	67.6	103.0	2.4	1.3	9.4	96.6[g]	109.1[g]	155.9[g]	18.5	21.7	21.5	1.
0.6	0.2	0.6	0.7	0.9	4.8[h]	7.2[h]	5.8[h]	331.5	368.6	368.8	0.6	4.5	4.7	347.4[i]	400.2[i]	407.0[i]	2.7	3.1	3.1	2.
4.3	3.4	21.6	38.1	32.7	104.5	135.2	126.9	180.3	248.5	278.8	9.6	13.1	23.0	294.4	396.8	428.7	44.6	54.3	57.4	3.
2.7	*3.1*	*19.3*	*30.7*	*24.6*	*83.3*	*102.0*	*91.7*	*129.8*	*169.2*	*193.5*	*9.5*	*10.0*	*12.1*	*222.6*	*281.2*	*297.3*	*33.5*	*36.1*	*9.4*	
1.6	1.6	2.6	2.5	2.6	7.4	9.2	7.4	8.5	13.6	23.3	1.2	1.3	3.0	17.1	24.1	33.7	2.0	3.6	1.8	4.
—	—	0.1	0.3	0.2	2.1	1.5	1.8	19.7	23.0	26.6	0.5	1.1	1.8	22.3	25.6	30.2	2.0	1.2	1.5	5.
3.4	3.1	5.1	5.3	6.9	31.7	28.8	38.9	37.1	40.3	50.5	1.7	0.5	0.3	70.5	69.6	89.7	7.5	11.8	18.8	6.
0.1	0.2	0.5	0.8	1.2	7.9	9.2	9.7	35.4	45.8	52.1	0.7	0.6	1.0	44.0	55.6	62.8	5.8	6.6	6.8	7.
7.4	7.0	16.4	20.2	21.3	88.8	116.4	119.5	89.2	105.2	123.2	1.3	1.4	2.0	179.3	223.0	244.7	35.2	51.9	53.9	8.
1.4	2.0	5.4	7.5	9.0	28.2	29.6	34.9	57.8	53.7	67.2	1.8	1.8	1.8	87.8	85.1	103.9	3.1	3.2	4.7	9.
0.6	0.6	0.3	0.7	0.3	4.1	5.0	5.0	16.6	19.3	23.9	0.1	0.2	0.2	20.8	24.5	29.1	0.4	0.6	0.7	10.
11.0	8.8	34.2	39.5	48.4	204.5	206.0	239.0	428.1	440.6	528.2	5.7	6.4	5.9	638.3	653.0	773.1	57.9	60.8	77.2	11.
5.2	6.4	20.0	26.1	32.0	79.7	113.3	128.9	149.8	194.1	252.4	3.9	10.7	2.7	233.4	318.1	384.0	14.7	25.6	33.2	12.
1.0	1.1	0.7	1.3	1.6	11.8	10.3	24.4	22.7	28.5	29.1	—	0.9	0.2	34.5	39.7	53.7	0.2	0.4	0.7	13.
2.1	2.9	1.4	0.8	2.7	22.9	29.2	24.6	18.2	17.6	17.0	0.2	—	0.3	41.3	46.8	41.9	0.6	4.7	1.9	14.
8.5	10.5	8.6	18.2	22.0	50.2	82.9	135.8	121.5	197.7	253.5	0.3	0.4	0.5	172.0	281.0	389.8	8.5	18.3	46.8	15.
1.3	1.1	17.9	42.0	42.6	30.9	67.6	78.5	42.2	43.2	53.9	—	—	11.9	73.1	110.8	144.3	8.9	45.9	49.6	16.
5.1	6.3	61.6	77.4	96.2	215.4	255.3	283.0	291.2	369.8	429.5	10.3	16.1	22.2	516.9	641.2	734.7	64.9	62.4	79.2	17.
14.1	11.5	15.8	18.2	16.1	85.3	104.4	111.7	167.4	202.4	236.9	1.5	5.7	7.3	254.2	312.5	355.9	23.1	23.5	33.3	18.
0.1	*0.1*	*2.0*	*5.4*	*5.6*	*16.7*	*22.5*	*32.2*	*33.1*	*39.4*	*46.6*	*1.5*	*4.6*	*6.3*	*51.3*	*66.5*	*85.1*	*7.9*	*6.9*	*13.6*	
5.7	*3.4*	*3.6*	*2.5*	*1.3*	*22.3*	*20.8*	*16.4*	*43.5*	*43.5*	*59.6*	—	*0.2*	*0.5*	*65.8*	*64.5*	*76.5*	*3.2*	*2.2*	*2.5*	
7.9	*7.5*	*9.3*	*8.6*	*8.3*	*40.9*	*51.5*	*52.9*	*69.2*	*87.6*	*92.5*	—	*0.9*	*0.5*	*110.1*	*140.0*	*145.9*	*9.1*	*9.5*	*11.5*	
0.2	0.3	1.6	1.5	1.7	7.7	10.6	12.7	14.8	22.0	28.9	0.2	0.6	1.1	22.7	33.2	42.7	2.7	4.4	5.6	19.
7.8	9.1	22.2	26.0	28.2	177.4[f]	210.2[f]	239.8[f]	228.2	302.4	356.6	2.0	4.6	4.5	408.7[g]	519.3[g]	604.0[g]	103.2	110.3	127.4	20.
2.2	*2.7*	*9.6*	*10.8*	*11.1*	*70.4*	*73.0*	*86.3*	*56.2*	*73.7*	*87.5*	*1.2*	*0.9*	*1.1*	*127.8*	*147.6*	*174.9*	*40.1*	*36.9*	*44.6*	
77.6	78.2	240.8	331.8	372.5	1 196.1	1 469.8	1 668.8	2 322.3	2 803.9	3 303.4	44.0	71.2	103.8	3 575.3	4 369.2	5 109.8	406.5	514.3	625.1	TOTAL EXPORTS
3.9	3.3	18.5	17.5	15.5	69.5[f]	68.5[f]	66.5[f]	230.6	247.8	248.2	11.3	13.8	12.5	313.8[g]	333.1[g]	330.1[g]	32.5	35.2	35.8	1.
0.5	*0.2*	*11.7*	*12.9*	*10.8*	*18.3*	*16.2*	*13.9*	*34.3*	*29.4*	*16.8*	—	*0.2*	*0.1*	*52.6*	*45.8*	*30.8*	*0.6*	*0.9*	*1.6*	
1.2	*1.1*	*3.3*	*1.3*	*1.2*	*15.2*	*9.8*	*9.6*	*121.0*	*120.6*	*134.8*	*9.3*	*10.5*	*11.0*	*145.5*	*140.9*	*155.4*	*7.3*	*4.4*	*4.6*	
1.1	*1.0*	*0.9*	*1.0*	*1.4*	*12.2*	*16.0*	*16.1*	*41.4*	*58.0*	*56.9*	*0.1*	*0.3*	*0.5*	*53.7*	*74.3*	*73.5*	*6.8*	*8.8*	*9.7*	
15.6	20.2	12.8	13.5	10.1	59.2[h]	65.8[h]	45.7[h]	48.4	79.1	84.6	—	—	—	125.2[i]	165.8[i]	149.3[i]	0.8	0.6	0.3	2.
0.1	0.2	8.0	3.3	6.2	24.7	25.3	29.3	16.9	20.8	36.5	1.4	1.6	1.3	43.0	47.7	67.1	9.1	8.5	12.3	3.
0.1	*0.1*	*2.7*	*1.8*	*4.7*	*12.8*	*15.9*	*22.5*	*10.1*	*8.9*	*21.7*	*0.9*	*0.9*	*0.5*	*23.8*	*25.7*	*44.7*	*5.4*	*6.6*	*9.0*	
—	—	0.3	0.4	0.3	7.3	8.5	6.0	2.3	2.3	2.1	0.1	—	—	9.7	10.8	8.1	4.5	5.4	4.7	4.
—	—	0.2	—	0.2	3.7	4.1	3.6	19.0	21.6	16.4	1.4	1.9	1.6	24.1	27.6	21.6	2.6	3.2	2.5	5.
0.1	0.1	0.6	0.6	1.2	5.7	5.9	7.4	2.0	1.9	2.3	—	0.2	0.1	7.7	8.0	9.8	3.5	4.2	5.0	6.
0.6	0.5	2.4	1.7	3.1	12.9	14.8	17.9	28.5	35.6	40.4	1.8	1.6	2.0	43.2	52.0	60.3	8.0	8.4	10.3	7.
0.5	0.6	2.6	2.9	3.8	11.6	18.1	19.8	9.6	11.1	12.9	0.1	0.5	0.6	21.3	29.7	33.3	5.3	9.0	6.6	8.
0.7	1.3	0.9	0.7	1.1	6.0	8.3	9.5	10.2	9.9	15.2	3.4	5.8	1.3	19.6	24.0	26.0	1.2	1.0	1.1	9.
0.1	—	0.1	—	0.2	0.8	0.5	0.8	0.7	0.5	0.3	—	—	0.1	1.5	1.0	1.2	—	—	0.1	10.
1.8	1.9	5.0	5.9	7.5	44.8	45.3	54.6	38.9	34.0	45.4	6.7	3.5	2.9	90.4	82.8	102.9	19.8	17.3	19.4	11.
0.5	0.4	2.2	2.7	2.6	14.7	11.4	14.9	17.3	17.8	17.3	1.1	1.4	1.8	33.1	30.6	34.0	3.8	3.6	4.6	12.
0.8	0.3	0.2	0.2	0.2	9.5	6.5	10.8	4.9	2.3	3.4	0.3	—	—	14.7	8.8	14.2	—	0.3	0.9	13.
—	—	0.5	0.4	0.8	3.6	4.2	3.7	6.1	4.5	0.4	—	0.1	—	9.7	8.8	4.1	—	—	—	14.
1.4	1.5	4.2	5.5	5.8	16.6	28.6	41.0	38.2	36.2	49.2	0.5	0.3	0.6	55.3	65.1	90.8	4.0	4.0	7.1	15.
1.0	2.7	1.0	5.5	3.0	6.5	8.6	11.0	12.0	9.2	5.0	0.1	0.1	0.1	18.6	17.9	16.1	3.1	0.6	4.4	16.
0.4	0.9	8.0	9.4	13.8	28.7	37.0	43.4	24.5	40.0	39.7	3.0	3.1	3.7	56.2	80.1	86.8	11.5	12.5	14.0	17.
12.8	7.9	36.1	36.0	34.3	176.6	175.8	158.5	142.0	148.2	155.5	23.7	16.4	22.5	342.3	340.4	336.5	41.9	38.9	48.0	18.
0.6	*0.5*	*14.8*	*16.7*	*21.3*	*44.1*	*52.5*	*58.6*	*30.9*	*33.2*	*36.6*	*16.3*	*13.3*	*21.1*	*91.3*	*99.0*	*116.3*	*4.0*	*3.5*	*12.3*	
1.9	*0.7*	*3.7*	*2.6*	*2.2*	*15.4*	*14.1*	*10.5*	*19.8*	*12.6*	*13.7*	—	*0.2*	—	*35.2*	*26.9*	*24.2*	*3.9*	*4.4*	*4.1*	
9.7	*6.1*	*16.3*	*15.5*	*9.8*	*103.4*	*96.8*	*76.3*	*71.2*	*83.8*	*86.2*	*7.4*	*2.9*	*1.3*	*182.0*	*183.5*	*163.8*	*26.4*	*23.6*	*23.1*	
0.4	0.2	3.0	3.0	3.8	7.7	8.2	9.3	4.3	5.3	7.5	0.2	0.7	0.3	12.2	14.2	17.1	2.0	2.0	2.0	19.
1.3	1.7	4.5	4.2	5.9	31.0	21.1	26.9	28.7	31.1	40.9	0.3	0.4	0.9	60.0	52.6	68.7	17.2	9.2	12.2	20.
42.0	43.7	111.1	113.4	119.4	541.1	566.5	580.6	685.1	759.2	823.2	55.4	51.4	52.3	1 301.6	1 401.0	1 478.0	170.8	163.9	191.3	TOTAL EXPORTS

1953 Liberia not included.

[f] Excluding ship's stores.

[g] Including ship's stores.

[h] Excluding bunkers.

[i] Including bunkers.

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Exports of selected European countries and the United S

Millions of d

Exporting country and commodity group / Area of destination and period	NORTH AMERICA			of which: UNITED STATES			of which: CANADA			LATIN AMERICA			OVERSEAS STERLI AREA [a]	
	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954
BELGIUM-LUXEMBOURG														
1. Food, drink and tobacco	2.3	3.5	2.8	2.2	3.2	2.6	0.1	0.3	0.2	0.2	0.6	0.9	4.8	4.5
2. Mineral fuels and petroleum products	—	—	—	—	—	—	—	—	—	—	1.0	1.3	1.5	1.2
3. Metallic ores and base metals	89.3	54.6	56.5	81.1	49.2	50.4	8.2	5.4	6.1	25.8	48.9	41.8	24.6	37.5
of which : Iron and steel	*51.9*	*27.4*	*26.5*	*46.9*	*24.3*	*22.5*	*5.0*	*3.1*	*4.0*	*23.6*	*47.0*	*38.3*	*21.4*	*35.5*
4. Oil-seeds, fats and oils	2.8	0.1	0.5	2.8	0.1	0.5	—	—	—	1.3	2.1	1.9	0.6	0.7
5. Textile fibres, natural	4.3	4.9	5.7	4.0	4.7	5.3	0.3	0.2	0.4	1.2	2.7	2.3	0.7	0.4
6. Selected construction materials	13.2	11.4	22.2	9.9	9.0	18.6	3.3	2.4	3.6	3.3	5.1	6.8	6.5	8.9
7. Other raw materials	3.9	2.8	3.1	3.5	2.5	2.8	0.4	0.3	0.3	0.1	0.2	0.2	0.4	0.4
8. Metal manufactures	11.4	15.9	17.5	10.5	14.6	16.6	0.9	1.3	0.9	7.0	10.8	8.9	9.6	9.7
9. Power-generating (except electric) machinery	0.1	0.1	0.2	0.1	0.1	0.1	—	—	0.1	0.2	0.2	0.1	0.1	0.3
10. Agricultural machinery	—	—	—	—	—	—	—	—	—	—	0.1	0.1	—	0.1
11. Metal-working, mining, construction and other industrial machinery	4.7	5.0	2.2	4.2	4.7	1.8	0.5	0.3	0.4	2.2	2.4	4.1	2.0	2.4
12. Electric machinery	1.1	1.4	1.1	0.9	1.3	1.0	0.2	0.1	0.1	4.5	4.4	9.2	2.2	2.9
13. Tractors, other than steam	—	—	—	—	—	—	—	—	—	—	—	—	—	—
14. Railway vehicles	—	—	—	—	—	—	—	—	—	3.3	3.8	6.4	9.6	18.7
15. Road motor vehicles	—	—	0.1	—	—	0.1	—	—	—	0.4	0.4	0.7	0.4	1.5
16. Other vehicles	0.1	0.2	0.4	0.1	0.2	0.3	—	—	0.1	—	—	—	0.1	0.1
17. Chemicals	16.0	12.2	11.7	14.4	11.2	10.9	1.6	1.0	0.8	7.3	6.4	9.6	14.2	25.1
18. Textile manufactures and clothing	42.3	37.2	49.7	34.6	30.5	41.5	7.7	6.7	8.2	9.2	7.1	6.8	19.6	25.0
19. Paper, manufactures of wood and paper (excluding furniture)	0.4	0.4	0.7	0.4	0.4	0.7	—	—	—	0.2	0.4	0.4	0.8	1.2
20. All other commodities	36.3	55.4	81.5	31.9	50.5	75.8	4.4	4.9	5.7	4.0	5.0	6.0	8.2	10.7
TOTAL EXPORTS	228.2	205.1	255.9	200.6	182.2	229.0	27.6	22.9	26.9	70.2	101.6	107.5	105.9	151.3
NETHERLANDS														
1. Food, drink and tobacco	44.8	57.2	46.1	41.5	54.0	41.9	3.3	3.2	4.2	17.3	26.2	22.5	63.8	62.4
of which : Live animals and meat	*28.6*	*36.9*	*25.2*	*28.6*	*36.9*	*25.2*	—	—	—	*2.0*	*3.1*	*2.4*	*2.0*	*2.4*
Dairy products	*1.8*	*1.9*	*2.2*	*1.5*	*1.6*	*1.8*	*0.3*	*0.3*	*0.4*	*11.3*	*12.5*	*13.7*	*30.2*	*27.2*
Fruits and vegetables	*4.1*	*4.1*	*3.5*	*2.7*	*2.9*	*2.0*	*1.4*	*1.2*	*1.5*	*1.2*	*1.6*	*2.2*	*3.1*	*2.8*
2. Mineral fuels and petroleum products	0.2	0.2	0.2	0.2	0.2	0.2	—	—	—	0.5	1.8	1.2	12.8	20.4
3. Metallic ores and base metals [h]	15.0	24.7	11.3	14.9	23.8	10.4	0.1	0.9	0.9	2.0	4.2	5.1	2.9	4.9
4. Oil-seeds, fats and oils	4.5	2.6	2.4	4.4	2.5	2.2	0.1	0.1	0.2	3.2	3.9	1.2	1.5	2.4
5. Textile fibres, natural [h]	0.8	2.4	5.7	0.6	2.2	5.5	0.2	0.2	0.2	0.4	0.5	1.0	—	0.1
6. Selected construction materials	0.2	0.1	0.3	0.1	0.1	0.2	0.1	—	0.1	0.4	0.5	0.8	1.1	1.0
7. Other raw materials [h]	15.1	12.5	11.8	13.1	10.7	10.1	2.0	1.8	1.7	1.3	0.8	0.9	1.0	0.7
8. Metal manufactures	3.9	4.6	5.0	3.4	4.1	4.5	0.5	0.5	0.5	3.5	5.0	4.0	4.2	4.3
9. Power-generating (except electric) machinery	0.4	0.5	0.6	0.4	0.5	0.6	—	—	—	1.3	0.7	0.5	0.4	0.7
10. Agricultural machinery	0.1	0.1	—	—	—	—	0.1	0.1	—	0.1	0.1	0.1	—	—
11. Metal-working, mining, construction and other industrial machinery	1.3	2.3	2.5	1.1	1.8	2.2	0.2	0.5	0.3	4.4	3.6	3.5	4.1	7.2
12. Electric machinery	5.1	6.8	6.6	4.0	5.0	5.0	1.1	1.8	1.6	10.4	18.6	18.0	9.5	13.7
13. Tractors, other than steam	—	—	—	—	—	—	—	—	—	—	—	0.1	—	—
14. Railway vehicles	—	—	—	—	—	—	—	—	—	20.4	12.6	13.0	0.1	1.2
15. Road motor vehicles	—	0.1	—	—	0.1	—	—	—	—	0.9	0.8	1.1	0.1	0.2
16. Other vehicles	4.2	2.4	5.5	4.1	2.4	5.2	0.1	—	0.3	5.2	7.3	26.3	7.2	3.9
17. Chemicals	18.5	18.1	12.4	17.3	17.3	11.6	1.2	0.8	0.8	6.9	9.6	8.8	12.9	19.3
18. Textile manufactures and clothing [h]	10.1	11.4	9.6	7.0	9.0	8.0	3.1	2.4	1.6	4.3	5.5	5.1	45.3	36.3
19. Paper, manufactures of wood and paper (excluding furniture) [h]	1.1	1.5	1.1	1.1	1.4	1.0	—	0.1	0.1	0.7	0.9	1.3	3.4	4.6
20. All other commodities [h]	42.0	15.8	36.9	39.9	14.5	33.9	2.1	1.3	3.0	3.2	3.5	4.3	7.6	18.0
TOTAL EXPORTS	167.3	163.3	158.0	153.1	149.6	142.5	14.2	13.7	15.5	86.4	106.1	118.8	177.9	201.3

Sources : See Appendix B. [a] Including British colonies. [b] Excluding the sterling area. [c] See footnote [c] on page A.14. [d] Including unallocated ex

[i] Excluding ship's stores. [j] Including ship's stores.

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in commodity groups and by area of destination

) prices, f.o.b.

FFILIATED OVERSEAS RRITORIES [b, c]		OTHER OVERSEAS COUNTRIES [c]			TOTAL OVERSEAS COUNTRIES [d]			WESTERN EUROPE			EASTERN EUROPE			TOTAL WORLD			of which: DOLLAR AREA [e]			Group
1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	
13.6	15.2	8.7	3.3	4.8	28.9	25.5	27.8	68.3	71.2	81.9	0.7	1.7	4.2	97.9	98.4	113.9	2.3	3.9	3.5	1.
1.6	1.0	1.5	1.0	0.6	4.0 [f]	4.8 [f]	3.4 [f]	99.0	130.5	167.0	0.4	1.8	0.9	111.9 [g]	150.3 [g]	187.6 [g]	—	—	—	2.
22.6	24.9	20.1	23.8	26.9	181.0	187.4	201.0	333.3	397.7	473.5	17.2	11.1	10.5	531.5	596.2	685.0	108.9	84.1	77.4	3.
20.6	*22.9*	*16.9*	*21.8*	*24.0*	*132.5*	*152.3*	*159.1*	*184.9*	*239.0*	*318.1*	*16.7*	*8.2*	*6.9*	*334.1*	*399.5*	*484.1*	*70.5*	*55.9*	*46.6*	
2.8	1.2	1.2	0.6	0.6	7.2	6.3	4.9	15.0	13.6	24.3	0.8	1.0	2.2	23.0	20.9	31.4	4.1	1.9	1.9	4.
0.4	0.3	9.0	6.2	7.9	15.4	14.6	16.8	115.8	97.5	111.1	9.7	15.0	16.3	140.9	127.1	144.2	4.9	5.9	6.4	5.
7.9	6.2	3.8	3.4	4.7	33.3	36.7	49.3	37.5	41.4	47.9	0.2	—	—	71.0	78.1	97.2	16.1	16.0	28.8	6.
0.3	0.4	0.6	0.5	0.5	5.4	4.2	4.7	35.3	33.2	39.9	0.2	0.8	1.0	40.9	38.2	45.6	4.0	2.8	3.2	7.
13.3	13.1	7.5	4.8	7.2	72.3	55.7	56.5	25.4	35.0	44.0	1.0	1.4	0.5	98.7	92.1	101.0	16.2	23.7	24.5	8.
3.1	3.6	0.2	0.4	0.5	3.3	4.1	4.8	7.4	6.1	7.5	0.1	1.2	2.4	10.8	11.4	14.7	0.2	0.1	0.3	9.
0.2	0.1	—	—	—	0.2	0.4	0.3	2.0	3.1	3.3	—	—	—	2.2	3.5	3.6	—	—	—	10.
12.5	11.2	1.7	1.3	1.6	25.0	23.6	21.6	35.0	39.4	46.5	1.8	1.4	1.8	61.8	64.4	69.9	5.6	6.7	4.7	11.
11.8	16.8	3.5	2.9	4.8	21.9	23.4	35.2	29.8	37.8	47.0	6.6	3.9	1.8	58.3	65.1	84.0	3.7	4.1	4.3	12.
0.1	0.1	—	—	—	—	0.1	0.1	0.1	0.1	—	—	—	—	0.1	0.2	0.1	—	—	—	13.
13.6	5.6	5.2	2.5	3.0	28.2	38.6	23.4	6.3	2.7	4.8	—	—	0.3	34.5	41.3	28.5	2.2	3.2	1.6	14.
3.1	2.9	0.2	0.6	0.4	5.5	5.6	5.9	16.4	21.8	35.4	—	—	0.1	21.9	27.4	41.4	0.2	0.3	0.4	15.
6.7	6.4	3.4	1.8	1.8	10.7	8.8	9.3	17.4	19.9	25.2	0.4	3.5	4.8	28.5	32.2	39.3	0.1	0.2	1.7	16.
8.2	9.0	17.0	14.3	19.8	60.9	66.2	76.1	82.2	114.4	112.8	5.0	5.4	5.4	148.1	186.0	194.3	20.0	15.7	16.2	17.
16.4	17.6	7.5	9.0	13.6	92.3	94.7	112.1	221.8	242.8	262.2	8.7	11.2	5.0	322.8	348.7	379.3	48.2	41.8	54.0	18.
2.6	2.7	0.4	0.6	0.8	5.3	5.2	6.1	13.4	16.9	19.7	0.3	1.0	0.9	19.0	23.1	26.7	0.5	0.7	0.9	19.
11.4	12.8	3.3	3.0	4.6	63.3	85.5	122.0	82.7	94.7	123.2	1.6	4.0	3.2	147.6	184.2	248.4	38.8	59.5	85.5	20.
152.2	151.1	94.8	80.0	104.1	664.1	691.4	781.3	1 244.1	1 419.8	1 677.2	54.7	64.4	61.3	1 971.4	2 188.8	2 536.1	276.0	270.6	315.3	TOTAL EXPORTS
30.9	30.8	36.3	37.2	39.2	195.4	213.9	198.6	461.6	506.2	618.6	37.5	40.2	19.9	694.5	760.3	837.1	61.9	78.9	68.8	1.
3.4	*3.6*	*1.1*	*1.2*	*1.3*	*36.6*	*47.0*	*35.0*	*78.7*	*97.2*	*130.2*	*2.1*	*0.5*	*0.6*	*117.4*	*144.7*	*165.8*	*30.3*	*39.3*	*27.4*	
16.2	*14.2*	*16.4*	*20.8*	*21.9*	*77.5*	*78.6*	*78.2*	*170.8*	*171.9*	*190.2*	*19.9*	*18.6*	*5.9*	*268.2*	*269.1*	*274.3*	*14.1*	*17.6*	*19.0*	
1.6	*1.9*	*1.7*	*1.1*	*1.7*	*12.0*	*11.2*	*12.8*	*90.2*	*108.2*	*139.6*	*3.9*	*4.9*	*2.8*	*106.1*	*124.3*	*155.2*	*4.7*	*4.8*	*4.8*	
8.6	11.8	2.1	4.6	4.4	19.4 [f]	35.6 [f]	33.8 [f]	140.0	174.4	216.1	—	—	—	176.8 [g]	229.1 [g]	274.1 [g]	0.4	0.4	0.5	2.
1.2	2.4	4.0	4.6	7.1	25.3	39.6	31.0	45.9	105.4	117.6	0.2	1.9	4.7	71.4	146.9	153.3	15.9	25.7	12.5	3.
1.1	1.6	1.4	2.0	3.6	11.6	12.0	11.0	26.8	33.8	24.2	1.8	3.2	2.3	40.2	49.0	37.5	7.7	6.3	3.4	4.
0.2	0.2	0.4	0.3	0.2	1.7	3.5	7.2	26.8	30.7	36.9	6.4	8.3	9.2	34.9	42.5	53.3	1.0	2.5	5.8	5.
0.8	0.9	1.7	1.1	1.3	4.5	3.5	4.4	10.8	11.4	12.8	0.2	0.1	0.2	15.5	15.0	17.4	0.3	0.3	0.6	6.
0.2	0.3	0.9	0.4	0.4	18.5	14.6	14.3	58.4	62.4	66.7	0.6	1.3	1.2	77.5	78.3	82.2	16.3	12.9	12.3	7.
2.8	3.1	5.4	3.9	4.8	20.5	20.6	20.8	15.9	14.3	14.5	0.2	0.1	0.1	36.6	35.0	35.4	6.2	7.8	8.6	8.
1.2	1.0	2.2	2.5	2.1	5.2	5.6	5.2	7.7	6.6	10.2	—	0.1	—	12.9	12.3	15.4	0.8	0.8	1.0	9.
—	—	—	—	—	0.2	0.2	0.2	0.9	1.4	1.7	—	—	—	1.1	1.6	1.9	0.1	0.1	—	10.
3.3	3.8	7.7	7.2	6.8	20.6	23.6	24.3	22.6	30.7	37.7	0.5	0.1	0.2	43.7	54.4	62.2	4.3	4.3	4.4	11.
4.2	4.6	13.3	13.0	13.4	41.7	56.3	58.3	69.2	84.9	90.6	0.1	0.3	0.4	111.0	141.5	149.3	10.8	14.8	15.9	12.
0.1	—	0.1	0.1	—	0.1	0.2	0.2	0.1	0.3	0.2	—	—	—	0.2	0.5	0.4	—	—	—	13.
—	—	1.2	2.4	1.7	21.7	16.2	14.7	0.9	2.7	1.7	—	—	—	22.6	18.9	16.4	—	—	—	14.
1.8	1.4	1.6	1.3	1.0	4.0	4.2	4.0	7.7	8.9	7.8	—	—	—	11.7	13.1	11.8	0.3	0.1	0.1	15.
3.7	2.9	11.4	8.3	8.2	29.6	25.6	47.2	60.5	63.6	28.3	2.1	12.9	8.9	92.2	102.1	84.4	7.1	7.4	15.4	16.
4.3	4.8	21.8	18.2	21.3	63.5	69.5	72.3	78.4	90.4	98.6	4.2	5.7	5.2	146.1	165.6	176.1	24.7	24.5	17.7	17.
12.8	12.7	20.3	17.3	20.5	91.9	83.3	82.0	130.9	139.2	142.7	2.3	6.1	2.6	225.1	228.6	227.3	12.3	14.4	12.3	18.
1.4	1.3	3.0	2.3	2.6	9.5	10.7	10.2	22.9	30.1	33.0	—	—	—	32.4	40.8	43.2	1.6	2.3	1.8	19.
5.2	5.5	9.2	6.3	11.2	66.9 [i]	48.8 [i]	78.9 [i]	79.0	63.7	84.6	2.0	1.5	0.5	154.6 [j]	121.7 [j]	173.8 [j]	43.8	17.9	39.2	20.
83.8	89.1	144.0	133.0	149.8	651.8	687.5	718.6	1 267.0	1 461.1	1 644.5	58.1	81.8	55.4	2 001.0	2 257.2	2 452.5	215.5	221.4	220.3	TOTAL EXPORTS

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r 1953 Liberia not included. [f] Excluding bunkers. [g] Including bunkers. [h] Data for 1953 for groups 3, 5, 7, 18, 19 and 20 are not fully comparable
h those for 1954 and 1955. For further details see Appendix B.

Exports of selected European countries and the United

Millions of

Exporting country and commodity group / Area of destination and period	North America			of which: United States			of which: Canada			Latin America			Overseas Sterl Area [a]	
	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954
DENMARK														
1. Food, drink and tobacco	37.0	43.6	40.9	36.3	42.8	40.0	0.7	0.8	0.9	9.7	13.9	13.1	10.4	11.8
of which: Live animals and meat	*15.7*	*23.5*	*21.2*	*15.7*	*23.4*	*21.1*	—	*0.1*	*0.1*	*2.0*	*2.4*	*2.7*	*2.9*	*3.1*
Dairy products	*15.4*	*12.5*	*13.1*	*15.1*	*12.1*	*12.6*	*0.3*	*0.4*	*0.5*	*4.7*	*6.0*	*5.9*	*5.6*	*5.6*
Cereals and preparations	*0.3*	*0.3*	*0.2*	*0.3*	*0.3*	*0.2*	—	—	—	*1.6*	*3.2*	*2.6*	*0.3*	*0.7*
2. Mineral fuels and petroleum products	—	—	—	—	—	—	—	—	—	—	—	0.1	—	—
3. Metallic ores and base metals	4.8	6.7	8.6	4.8	6.7	8.6	—	—	—	0.8	1.3	0.9	—	0.1
4. Oil-seeds, fats and oils	0.1	0.2	0.4	0.1	0.2	0.4	—	—	—	0.1	0.4	0.3	0.2	0.3
5. Textile fibres, natural	—	0.1	0.2	—	0.1	0.2	—	—	—	—	0.2	0.3	—	—
6. Selected construction materials	0.3	0.2	1.5	0.2	0.1	1.1	0.1	0.1	0.4	3.2	1.3	1.5	0.5	1.0
7. Other raw materials	6.8	7.0	10.3	6.2	6.3	9.5	0.6	0.7	0.8	0.7	0.3	0.3	0.2	0.3
8. Metal manufactures	0.5	2.3	0.9	0.5	2.2	0.8	—	0.1	0.1	0.6	1.5	1.2	0.2	0.3
9-13. Machinery	1.6	1.9	2.6	1.3	1.5	2.1	0.3	0.4	0.5	10.4	15.9	15.3	2.8	3.4
14-16. Vehicles	0.1	0.1	0.2	0.1	0.1	0.2	—	—	—	1.0	6.1	0.5	—	0.4
17. Chemicals	1.3	1.1	1.5	1.1	1.0	1.3	0.2	0.1	0.2	1.9	4.1	5.0	5.8	3.4
18. Textile manufactures and clothing	1.0	1.2	2.4	1.0	1.1	1.9	—	0.1	0.5	2.1	2.6	2.0	0.2	0.2
19. Paper, manufactures of wood and paper (excluding furniture)	0.4	0.3	0.5	0.2	0.2	0.4	0.2	0.1	0.1	0.1	0.2	0.1	0.3	0.4
20. All other commodities	2.7	2.9	4.6	2.5	2.6	4.2	0.2	0.3	0.4	0.6	0.9	0.9	0.6	0.5
TOTAL EXPORTS	56.6	67.6	74.6	54.3	64.9	70.7	2.3	2.7	3.9	31.2	48.7	41.5	21.2	22.1
NORWAY														
1. Food, drink and tobacco	13.5	14.0	11.7	12.3	13.1	10.6	1.2	0.9	1.1	10.7	11.7	14.7	10.7	11.7
2. Mineral fuels and petroleum products	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Metallic ores and base metals	19.9	17.2	20.9	19.7	17.2	20.9	0.2	—	—	0.2	1.4	0.8	1.9	2.9
of which: Ores and scrap	*0.2*	*0.4*	*0.7*	*0.1*	*0.4*	*0.7*	*0.1*	—	—	—	—	—	—	—
Iron and steel	*4.6*	*2.3*	*4.1*	*4.6*	*2.3*	*4.1*	—	—	—	—	*0.6*	*0.4*	*0.4*	*0.9*
4. Oil-seeds, fats and oils	1.2	0.7	1.8	1.2	0.6	1.7	—	0.1	0.1	0.5	0.9	0.7	0.5	0.8
5. Textile fibres, natural	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. Selected construction materials	—	0.1	0.2	—	0.1	0.2	—	—	—	—	—	—	—	—
7. Other raw materials	3.6	1.8	2.2	3.6	1.8	2.2	—	—	—	0.3	1.5	1.2	1.2	1.1
8. Metal manufactures	0.3	0.2	0.4	0.2	0.1	0.3	0.1	0.1	0.1	—	0.2	0.3	0.2	0.3
9-13. Machinery	0.3	0.2	0.3	0.2	—	0.2	0.1	0.2	0.1	0.2	0.8	0.6	0.3	0.4
14. Railway vehicles	—	—	—	—	—	—	—	—	—	—	—	—	—	—
16. Other vehicles	0.2	0.2	0.1	0.1	0.2	0.1	0.1	—	—	3.9	3.4	2.1	2.3	0.4
17. Chemicals	3.3	3.0	3.4	3.3	3.0	3.3	—	—	0.1	0.2	1.7	1.4	0.8	1.0
18. Textile manufactures and clothing	2.7	1.2	2.9	2.6	1.2	2.8	0.1	—	0.1	0.4	0.4	0.2	1.1	1.1
19. Paper, manufactures of wood and paper (excluding furniture)	0.6	0.3	0.4	0.6	0.3	0.4	—	—	—	3.9	4.4	5.0	10.6	14.9
20. All other commodities	1.5	2.3	1.9	1.3	2.1	1.7	0.2	0.2	0.2	0.1	0.6	0.5	0.3	0.5
TOTAL EXPORTS[f]	47.1	41.2	46.2	45.1	39.7	44.4	2.0	1.5	1.8	20.4	27.0	27.5	29.9	35.1

Sources: See Appendix B. [a] Including British colonies. [b] Excluding the sterling area. [c] See footnote [c] on page A.14. [d] Including unallocated ex *ontinued)*

in commodity groups and by area of destination

prices, f.o.b.

Affiliated Overseas erritories [b, c]		Other Overseas Countries [c]			Total Overseas Countries [d]			Western Europe			Eastern Europe			Total World			of which: Dollar Area [e]			Group
1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	
9.0	8.2	6.7	6.9	7.7	73.1	85.2	83.0	486.6	479.6	526.5	29.2	49.4	20.0	588.9	614.2	629.5	41.9	50.9	48.0	1.
1.1	*1.3*	*0.9*	*1.1*	*1.0*	*22.5*	*31.2*	*29.1*	*236.5*	*240.1*	*283.2*	*9.6*	*21.2*	*8.6*	*268.6*	*292.5*	*320.9*	*17.3*	*25.7*	*23.9*	
6.9	*6.1*	*4.1*	*4.5*	*5.0*	*37.1*	*35.5*	*36.7*	*184.1*	*172.9*	*175.1*	*12.6*	*19.2*	*4.4*	*233.8*	*227.6*	*216.2*	*18.2*	*16.6*	*16.7*	
0.2	*0.2*	*0.8*	*0.2*	*0.7*	*3.2*	*4.6*	*4.6*	*22.9*	*10.5*	*18.6*	*0.1*	*2.0*	*1.3*	*26.2*	*17.1*	*24.5*	*0.4*	*0.7*	*0.4*	
—	—	—	—	—	—	—	0.1	0.4	0.5	1.5	—	—	—	0.4	0.5	1.6	—	—	—	2.
—	—	0.1	0.1	0.2	5.8	8.2	9.8	8.4	7.2	9.3	—	—	0.4	14.2	15.4	19.5	4.9	6.9	8.8	3.
0.1	0.7	0.3	0.5	0.7	0.9	1.5	2.6	7.0	9.6	11.0	0.5	0.4	0.2	8.4	11.5	13.8	0.2	0.3	0.5	4.
—	—	0.1	—	—	0.1	0.3	0.5	2.4	1.8	2.0	0.4	0.6	0.4	2.9	2.7	2.9	—	0.1	0.2	5.
0.3	0.2	0.3	0.6	0.9	4.5	3.4	5.4	3.3	3.4	5.5	—	—	—	7.8	6.8	10.9	0.4	0.7	2.3	6.
—	—	0.3	0.3	0.3	8.0	7.9	11.4	23.0	24.8	31.1	1.6	1.6	1.6	32.6	34.3	44.1	6.8	7.0	10.3	7.
0.1	0.1	0.3	0.8	0.5	2.8	5.0	3.1	4.1	4.5	7.8	—	0.1	—	6.9	9.6	10.9	0.8	2.7	1.1	8.
1.1	1.3	2.9	3.3	4.8	19.5	25.6	28.9	47.0	54.0	73.3	2.7	2.7	2.4	69.2	82.3	104.6	3.3	4.4	4.9	9-13.
—	—	1.4	1.5	—	2.5	8.1	1.0	12.9	12.7	21.9	4.4	0.4	6.0	19.8	21.2	28.9	0.9	3.2	0.4	14-16.
0.2	0.2	1.2	1.2	1.5	10.4	10.0	10.5	13.7	13.3	15.2	0.6	0.5	0.5	24.7	23.8	26.2	1.5	1.3	2.1	17.
—	—	0.2	0.2	0.3	3.5	4.2	5.1	11.7	11.7	16.9	—	—	—	15.2	15.9	22.0	1.0	1.2	2.4	18.
—	—	0.1	0.1	0.2	0.9	1.0	1.4	3.4	3.4	3.9	0.1	—	0.1	4.4	4.4	5.4	0.4	0.4	0.6	19.
0.3	0.2	0.2	0.2	0.3	4.3	4.8	6.8	10.0	10.6	14.9	0.1	0.3	0.3	14.4	15.7	22.0	2.9	3.1	4.8	20.
11.1	10.9	14.1	15.7	17.4	136.3	165.2	169.6	633.9	637.1	740.8	39.6	56.0	31.9	809.8	858.3	942.3	65.0	82.2	86.4	Total exports
2.4	2.4	1.7	2.0	1.3	39.3	41.8	40.2	48.2	53.1	56.2	9.8	12.4	14.4	97.3	107.3	110.8	16.3	16.9	14.5	1.
—	—	—	—	—	—	—	—	1.5	1.4	1.5	—	—	—	1.5	1.4	1.5	—	—	—	2.
0.1	0.1	0.3	0.3	0.1	22.3	21.9	25.1	49.3	57.6	74.9	3.8	2.6	1.5	75.4	82.1	101.5	20.1	17.4	21.1	3.
—	—	—	—	—	*0.2*	*0.4*	*0.7*	*10.6*	*11.6*	*13.3*	*1.7*	*1.4*	*1.2*	*12.5*	*13.4*	*15.2*	*0.2*	*0.4*	*0.7*	
0.1	*0.1*	*0.1*	*0.1*	—	*5.1*	*4.0*	*5.7*	*18.0*	*16.5*	*22.5*	*0.6*	*0.4*	*0.1*	*23.7*	*20.9*	*28.3*	*4.6*	*2.3*	*4.1*	
0.3	0.3	0.2	0.4	0.3	2.6	3.1	3.6	16.0	26.6	18.2	7.9	19.0	15.5	26.5	48.7	37.3	1.5	1.0	2.1	4.
—	—	—	—	—	—	—	—	1.7	2.1	1.7	—	—	—	1.7	2.1	1.7	—	—	—	5.
—	—	—	—	—	0.2	0.1	0.2	0.2	0.4	0.4	—	—	—	0.4	0.5	0.6	—	0.1	0.1	6.
—	—	0.9	0.3	0.2	6.1	4.7	4.5	71.0	64.9	67.6	2.2	1.2	1.2	79.3	70.8	73.3	3.8	1.9	2.1	7.
—	—	0.1	0.1	—	0.6	0.8	1.0	1.8	4.4	5.5	—	—	0.1	2.4	5.2	6.6	0.3	0.2	0.4	8.
—	—	0.2	0.3	0.1	1.0	1.7	1.9	4.9	5.6	7.4	0.3	—	—	6.2	7.3	9.3	0.3	0.3	0.4	9-13.
—	—	—	—	—	—	—	—	—	0.1	0.1	—	—	—	—	0.1	0.1	—	—	—	14.
0.2	—	4.2	3.1	4.4	10.6	7.3	7.8	9.3	13.8	15.4	—	1.7	—	19.9	22.8	23.2	3.4	6.4	6.1	16.
—	—	4.7	4.6	4.4	9.0	10.3	10.2	39.1	41.1	42.2	0.2	0.5	0.5	48.3	51.9	52.9	3.4	3.0	3.5	17.
—	0.1	0.2	0.3	0.2	4.4	3.0	3.9	3.5	3.0	2.9	2.5	2.7	0.6	10.4	8.7	7.4	3.0	1.5	2.9	18.
1.1	0.9	4.4	3.8	3.7	20.4	24.5	23.5	21.0	26.7	26.8	—	1.9	0.1	41.4	53.1	50.4	2.1	1.8	1.6	19.
0.1	0.1	0.2	0.3	0.4	2.3	3.8	3.4	3.6	4.1	5.2	0.4	0.1	0.1	6.3	8.0	8.7	1.6	2.4	2.0	20.
4.2	3.9	17.1	15.5	15.1	118.8	123.0	125.3	271.1	304.9	326.0	27.1	42.1	34.0	417.0	470.0	485.3	55.8	52.9	56.8	Total exports

1953 Liberia not included.

[f] Group 15 not shown in the table is nil for all periods shown.

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Exports of selected European countries and the United S

Millions of d

Area of destination and period / Exporting country and commodity group	North America			of which: United States			of which: Canada			Latin America			Overseas Sterl Area [a]		
	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1
SWEDEN															
1. Food, drink and tobacco	1.5	1.5	1.1	1.3	1.4	1.0	0.2	0.1	0.1	4.4	1.7	0.9	0.8	0.4	0
2. Mineral fuels and petroleum products	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Metallic ores and base metals	23.4	14.0	16.0	22.9	13.4	15.3	0.5	0.6	0.7	4.9	12.1	6.4	1.1	1.4	2
of which : Ores and scrap	*14.1*	*7.7*	*6.9*	*14.1*	*7.7*	*6.9*	—	—	—	—	*0.1*	*0.1*	—	—	—
Iron and steel	*8.5*	*6.2*	*7.9*	*8.1*	*5.6*	*7.2*	*0.4*	*0.6*	*0.7*	*3.6*	*7.5*	*5.7*	*1.1*	*1.3*	*2*
4. Oil-seeds, fats and oils	0.2	0.2	0.7	0.2	0.2	0.7	—	—	—	—	0.1	—	0.1	—	0
5. Textile fibres, natural	0.4	0.1	0.1	0.4	0.1	0.1	—	—	—	—	—	—	—	—	—
6. Selected construction materials	0.7	0.7	1.6	0.5	0.5	1.3	0.2	0.2	0.3	3.5	0.7	0.3	0.8	1.6	1
7. Other raw materials	28.4	20.5	19.5	28.1	20.4	19.3	0.3	0.1	0.2	19.0	20.2	16.4	10.0	10.9	12
of which : Timber	—	—	—	—	—	—	—	—	—	—	*0.2*	—	*3.7*	*4.0*	*5*
Wood - pulp	*27.9*	*19.5*	*17.4*	*27.6*	*19.5*	*17.4*	*0.3*	—	—	*18.2*	*18.6*	*15.4*	*6.3*	*6.8*	*7*
8. Metal manufactures	5.3	4.5	5.3	3.5	2.9	3.4	1.8	1.6	1.9	3.6	8.0	5.9	6.3	9.3	9
9. Power-generating (except electric) machinery	0.2	0.3	0.1	0.1	0.1	—	0.1	0.2	0.1	2.3	2.3	2.1	0.6	0.6	0
10. Agricultural machinery	0.3	0.4	0.4	—	—	0.1	0.3	0.4	0.3	0.5	0.6	0.5	0.8	1.0	1
11. Metal-working, mining, construction and other industrial machinery	6.4	8.4	11.2	4.2	6.1	7.7	2.2	2.3	3.5	9.4	13.2	11.2	6.5	8.3	10
12. Electric machinery	0.6	2.5	1.9	0.4	1.9	0.9	0.2	0.6	1.0	10.2	12.7	10.2	1.9	3.4	3
13. Tractors, other than steam	—	—	—	—	—	—	—	—	—	0.7	0.5	0.3	0.2	0.3	0
14. Railway vehicles	—	—	—	—	—	—	—	—	—	—	0.1	—	—	—	—
15. Road motor vehicles	—	—	—	—	—	—	—	—	—	2.3	1.6	2.2	—	0.2	1
16. Other vehicles	0.2	2.0	4.0	0.1	2.0	4.0	0.1	—	—	10.0	4.3	5.5	0.1	2.0	0
17. Chemicals	0.9	0.9	1.2	0.9	0.8	1.2	—	0.1	—	2.3	3.6	2.8	1.5	2.3	2
18. Textile manufactures and clothing	0.7	0.5	2.1	0.7	0.4	2.0	—	0.1	0.1	0.3	0.8	0.4	0.3	0.6	1
19. Paper, manufactures of wood and paper (excluding furniture)	4.9	3.0	2.8	4.6	2.7	2.5	0.3	0.3	0.3	11.8	11.7	12.6	22.5	24.3	24
20. All other commodities	4.4	4.0	4.9	3.8	3.5	4.2	0.6	0.5	0.7	2.6	3.2	3.3	4.6	5.3	5
TOTAL EXPORTS	78.5	63.5	72.9	71.7	56.4	63.7	6.8	7.1	9.2	87.8	97.4	81.0	58.1	71.9	78
UNITED STATES[f]															
1. Food, drink and tobacco	165.5	170.9	172.9	7.4	6.2	7.0	158.1	164.7	165.9	363.6	303.2	288.4	202.9	86.1	11
of which : Cereals and preparations	*21.2*	*27.3*	*18.3*	*1.1*	*0.9*	*0.9*	*20.1*	*26.4*	*17.4*	*177.0*	*126.4*	*109.3*	*139.5*	*20.9*	*3*
Fruits and vegetables	*103.7*	*102.3*	*100.9*	*1.6*	*1.3*	*1.3*	*102.1*	*101.0*	*99.6*	*56.3*	*40.3*	*39.8*	*6.0*	*4.5*	
Tobacco	*5.0*	*4.3*	*3.9*	*0.8*	*0.7*	*0.7*	*4.2*	*3.6*	*3.2*	*21.5*	*24.3*	*22.4*	*47.9*	*49.8*	*5*
2. Mineral fuels and petroleum products	346.1	281.8	272.7	1.9	1.3	1.8	344.2	280.5	270.9	106.7	112.6	120.2	43.1	36.7	2
3. Metallic ores and base metals	188.9	147.6	179.7	0.2	0.3	0.3	188.7	147.3	179.4	150.7	148.7	151.8	31.1	47.9	5
of which : Iron and steel	*142.8*	*114.8*	*127.1*	*0.2*	*0.2*	*0.2*	*142.6*	*114.6*	*126.9*	*131.4*	*116.6*	*123.2*	*27.9*	*36.7*	*4*
4. Oil-seeds, fats and oils	43.7	55.5	46.1	0.4	0.4	0.4	43.3	55.1	45.7	31.9	45.9	59.8	7.8	11.5	1
5. Textile fibres, natural	48.8	58.9	47.5	—	—	—	48.8	58.9	47.5	7.5	15.1	8.8	11.6	56.8	2
6. Selected construction materials	65.7	48.8	63.1	0.2	0.2	0.2	65.5	48.6	62.9	37.8	31.8	35.0	5.7	3.5	
7. Other raw materials	82.8	77.7	102.6	0.1	0.1	0.1	82.7	77.6	102.5	35.1	49.9	61.7	24.6	34.8	3
8. Metal manufactures	82.9	58.1	72.1	0.6	0.7	0.6	82.3	57.4	71.5	82.1	70.0	69.7	13.4	9.2	1
9. Power-generating (except electric) machinery	44.4	31.1	37.6	0.1	0.1	0.1	44.3	31.0	37.5	44.7	43.3	39.7	14.8	10.6	1
10. Agricultural machinery	63.7	40.6	42.1	—	—	—	63.7	40.6	42.1	23.9	30.7	24.6	10.1	9.2	1
11. Metal-working, mining, construction and other industrial machinery	307.6	247.9	317.8	0.7	0.9	0.5	306.9	247.0	317.3	311.7	304.8	336.0	101.9	97.3	11
12. Electric machinery	150.6	118.7	140.5	1.0	0.5	1.1	149.6	118.2	139.4	155.4	129.2	120.8	27.1	17.8	2
13. Tractors, other than steam	92.3	56.9	70.5	—	—	—	92.3	56.9	70.5	59.0	81.2	63.0	44.3	38.9	3
14. Railway vehicles	20.4	39.1	18.4	—	—	—	20.4	39.1	18.4	45.3	47.4	26.4	6.6	3.5	1
15. Road motor vehicles	241.4	183.1	262.4	1.6	1.1	1.3	239.8	182.0	261.1	279.4	325.3	318.8	54.3	78.5	9
16. Other vehicles	16.8	21.9	20.1	—	0.1	—	16.8	21.8	20.1	39.7	68.0	48.3	3.3	15.6	2
17. Chemicals	160.8	142.1	168.6	1.2	1.0	1.2	159.6	141.1	167.4	254.5	284.8	289.6	45.0	58.3	6
18. Textile manufactures and clothing	128.3	83.8	97.0	2.5	2.2	2.1	125.8	81.6	94.9	181.9	167.4	143.7	48.3	60.0	6
of which : Cotton fabrics	*46.0*	*31.7*	*34.8*	*0.3*	*0.3*	*0.3*	*45.7*	*31.4*	*34.5*	*60.7*	*65.4*	*48.2*	*11.8*	*17.7*	*1*
19. Paper, manufactures of wood and paper (excluding furniture)	39.5	34.4	42.2	0.6	0.6	0.5	38.9	33.8	41.7	50.2	55.7	61.1	11.2	13.9	1
20. All other commodities	264.7	196.3	222.1	2.8	2.6	2.8	261.9	193.7	219.3	225.5	201.7	199.4	46.9	48.5	8
Unspecified	—	274.7	316.0	—	2.5	9.3	—	272.2	306.7	—	212.4	212.4	—	46.9	5
TOTAL EXPORTS	2 554.9	2 369.9	2 712.0	21.3	20.8	29.3	2 533.6	2 349.1	2 682.7	2 486.6	2 729.1	2 679.2	754.0	785.5	90

Sources : See Appendix B. [a] Including British colonies. [b] Excluding the sterling area. [c] See footnote [c] on page A.14. [d] Including unallocated exports. [e] For Liberia not included. [f] Figures for 1954 and 1955 are not fully comparable with those for 1953. Exports to unspecified destinations (amounting in 1954 to 629,0 mill. of do and in 1955 to 688,6 mill. of dollars at 1950 prices) are not available by commodity groups for all areas specified. They have been included in area totals as " unspecified ". Fo *oncluded)*

ain commodity groups and by area of destination

0 prices, f.o.b.

AFFILIATED OVERSEAS RITORIES [b, c]		OTHER OVERSEAS COUNTRIES [c]			TOTAL OVERSEAS COUNTRIES [d]			WESTERN EUROPE			EASTERN EUROPE			TOTAL WORLD			of which: DOLLAR AREA [e]			Group
1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	1953	1954	1955	
2.8	1.6	0.4	0.2	0.2	8.8	6.6	4.1	52.6	53.2	29.0	10.9	19.0	11.9	72.3	78.8	45.0	1.7	2.0	1.5	1.
—	—	—	—	—	—	—	—	0.8	1.5	1.1	—	—	—	0.8	1.5	1.1	—	—	—	2.
0.1	—	3.2	2.5	1.0	32.6	30.1	26.3	124.9	135.7	164.7	12.1	6.8	7.5	169.6	172.6	198.5	23.9	14.6	16.7	3.
—	—	*0.9*	—	—	*15.0*	*7.8*	*7.0*	*73.9*	*73.2*	*87.2*	*6.9*	*3.4*	*4.1*	*95.8*	*84.4*	*98.3*	*14.1*	*7.7*	*6.9*	
0.1	—	*1.9*	*1.3*	*1.0*	*15.1*	*16.4*	*17.0*	*35.7*	*38.1*	*52.1*	*5.0*	*3.3*	*3.0*	*55.8*	*57.8*	*72.1*	*9.0*	*6.8*	*8.6*	
0.2	0.7	0.2	0.2	0.4	0.7	0.7	1.9	25.9	14.5	15.7	—	0.1	2.9	26.6	15.3	20.5	0.2	0.3	0.7	4.
0.1	—	—	—	—	0.4	0.2	0.1	2.1	2.7	3.9	0.5	0.6	0.7	3.0	3.5	4.7	0.4	0.1	0.1	5.
0.4	0.4	1.6	1.1	1.0	7.0	4.5	5.2	4.4	4.1	3.9	—	—	—	11.4	8.6	9.1	0.9	1.0	1.8	6.
2.4	2.9	9.3	5.4	6.0	68.8	59.4	57.6	290.5	310.9	343.1	1.7	3.1	6.6	361.0	373.4	407.3	30.9	22.9	21.8	7.
1.9	*2.3*	*3.3*	*2.7*	*2.8*	*8.7*	*8.8*	*10.6*	*126.3*	*123.4*	*141.1*	*0.1*	*0.9*	*3.1*	*135.1*	*133.1*	*154.8*	—	*0.1*	—	
0.5	*0.6*	*5.5*	*2.2*	*2.1*	*58.3*	*47.6*	*42.8*	*154.8*	*177.3*	*189.8*	*0.4*	*1.2*	*2.1*	*213.5*	*226.1*	*234.7*	*30.4*	*21.8*	*19.7*	
1.3	0.9	5.7	5.4	3.8	21.9	28.5	25.7	25.0	27.9	31.6	1.3	1.0	0.7	48.2	57.4	58.0	6.8	7.6	8.8	8.
0.2	0.4	2.1	1.0	1.0	5.3	4.4	4.4	7.7	9.5	10.6	3.2	2.1	2.4	16.2	16.0	17.4	0.6	1.3	0.9	9.
0.1	0.1	0.2	0.1	0.1	1.9	2.2	2.1	5.8	7.9	8.3	0.2	0.1	0.2	7.9	10.2	10.6	0.4	0.5	0.6	10.
1.6	1.8	3.6	3.8	4.7	27.4	35.3	39.3	45.0	53.2	65.8	7.0	6.4	2.1	79.4	94.9	107.2	9.3	13.0	16.8	11.
0.6	0.9	1.8	2.1	3.9	14.9	21.3	20.7	18.5	22.7	26.1	4.3	3.8	2.8	37.7	47.8	49.6	7.3	10.7	9.3	12.
0.1	—	0.1	—	0.1	1.0	0.9	0.7	1.7	2.3	2.9	—	—	—	2.7	3.2	3.6	—	—	0.1	13.
—	—	—	—	—	—	0.1	—	0.9	1.7	0.6	0.2	—	0.1	1.1	1.8	0.7	—	—	—	14.
0.7	0.6	0.8	2.0	1.4	3.5	4.5	5.2	9.6	16.5	20.3	—	—	—	13.1	21.0	25.5	0.1	0.1	0.3	15.
—	—	3.8	6.3	3.4	14.1	14.6	13.0	38.8	70.1	59.3	2.4	4.6	4.7	55.3	89.3	77.0	8.3	11.1	10.6	16.
0.3	0.3	1.0	1.2	1.9	5.9	8.3	8.5	16.8	24.3	29.5	1.5	1.8	2.3	24.2	34.4	40.3	1.4	1.8	1.8	17.
0.1	0.2	0.3	0.3	0.4	1.6	2.3	4.3	10.7	13.5	13.5	1.5	1.5	0.3	13.8	17.3	18.1	0.8	0.6	2.3	18.
2.3	2.3	8.9	5.4	6.8	50.1	46.7	48.7	67.0	83.4	94.2	0.6	2.6	1.2	117.7	132.7	144.1	9.7	6.4	6.8	19.
2.1	2.0	2.5	1.5	1.9	15.7	16.1	17.5	19.2	21.4	23.6	0.3	0.7	2.2	35.2	38.2	43.3	6.2	6.1	7.0	20.
15.4	15.1	45.5	38.5	38.0	281.6	286.7	285.3	767.9	877.0	947.7	47.7	54.2	48.6	1 097.2	1 217.9	1 281.6	108.9	100.1	107.9	TOTAL EXPORTS
17.8	17.0	377.4	285.3	353.9	1 131.1	924.5	1 010.4	786.5	732.7	1 009.0	1.3	3.1	2.1	1 918.9	1 660.3	2 021.5	561.2	498.5	495.6	1.
4.2	*5.1*	*256.5*	*180.0*	*213.1*	*600.5*	*365.1*	*387.2*	*395.8*	*323.4*	*524.4*	—	*2.2*	*1.6*	*996.3*	*690.7*	*913.2*	*191.6*	*146.6*	*122.8*	
1.1	*1.1*	*10.4*	*0.1*	*5.3*	*178.9*	*188.7*	*186.1*	*49.2*	*68.5*	*70.3*	*0.1*	*0.3*	*0.1*	*228.2*	*257.5*	*256.5*	*160.9*	*142.8*	*141.2*	
8.5	*6.6*	*55.5*	*46.8*	*64.3*	*136.8*	*135.1*	*156.7*	*272.4*	*241.2*	*282.4*	*1.2*	*0.5*	*0.3*	*410.4*	*376.8*	*439.4*	*38.5*	*39.8*	*38.5*	
15.7	15.7	79.9	63.1	73.9	600.3	527.8	533.3	159.7	167.4	343.2	—	—	—	760.0	695.2	876.5	414.7	357.7	355.0	2.
5.4	3.7	54.9	64.8	61.7	431.8	426.7	464.1	149.7	269.1	421.7	—	—	—	581.5	695.8	885.8	301.9	240.4	285.3	3.
5.1	*3.5*	*32.0*	*28.7*	*33.5*	*340.0*	*310.7*	*342.7*	*76.1*	*90.1*	*175.2*	—	—	—	*416.1*	*400.8*	*517.9*	*245.5*	*197.0*	*215.0*	
4.3	3.3	133.8	128.4	144.1	219.2	247.5	270.6	156.4	300.9	333.7	—	1.2	0.5	375.6	549.6	604.8	76.9	92.5	83.8	4.
8.1	6.8	186.0	245.1	196.3	257.5	385.7	281.7	330.5	484.4	289.9	0.4	1.1	2.2	588.4	871.2	573.8	58.7	71.2	58.6	5.
1.1	0.8	9.6	11.3	11.4	121.7	113.8	132.9	10.1	8.9	14.0	—	—	—	131.8	122.7	146.9	100.8	78.9	97.0	6.
4.4	3.1	50.3	49.3	61.5	196.1	228.3	282.1	100.3	193.4	223.2	—	0.2	2.6	296.4	421.9	507.9	110.8	112.9	151.0	7.
2.6	2.3	20.2	22.4	22.7	201.6	205.6	225.1	15.6	13.6	16.4	—	—	—	217.2	219.2	241.5	158.1	126.4	140.6	8.
4.0	2.7	18.7	22.1	27.6	126.8	118.0	125.4	23.9	15.9	22.0	—	—	—	150.7	133.9	147.4	78.5	63.7	71.0	9.
4.7	4.3	3.2	3.5	3.6	105.9	96.2	92.9	7.3	6.5	6.5	—	—	—	113.2	102.7	99.4	77.2	57.8	59.5	10.
24.4	26.1	121.9	109.4	113.3	877.5	857.7	994.7	289.5	237.3	285.3	—	—	—	1 167.0	1 095.0	1 280.0	550.0	477.3	592.7	11.
4.7	4.9	50.0	48.9	55.5	389.2	371.5	398.3	69.7	55.5	55.2	—	—	—	458.9	427.0	453.5	272.5	219.0	248.9	12.
10.2	9.8	13.4	12.4	13.6	223.2	206.3	203.0	29.1	26.3	29.3	—	—	—	252.3	232.6	232.3	132.2	101.0	120.1	13.
3.1	0.7	6.1	2.4	10.9	79.7	96.5	73.8	5.6	2.9	4.0	—	—	—	85.3	99.4	77.8	38.0	65.3	35.4	14.
31.7	32.7	92.3	83.7	100.5	695.1	736.5	852.5	78.8	102.8	116.9	—	—	—	773.9	839.3	969.4	474.9	447.0	547.3	15.
1.7	1.1	12.6	70.0	15.9	75.7	178.7	120.3	55.9	36.4	46.0	—	—	—	131.6	215.1	166.3	56.1	138.2	63.2	16.
10.2	10.2	98.4	94.1	118.8	572.7	645.2	706.8	137.2	212.7	240.2	—	0.1	0.3	709.9	858.0	947.3	378.3	354.8	414.6	17.
13.9	11.2	146.6	120.2	110.9	524.3	529.1	516.5	50.2	42.7	55.9	—	—	—	574.5	571.8	572.4	384.2	321.1	300.7	18.
2.8	*1.7*	*74.7*	*61.6*	*54.9*	*196.0*	*197.8*	*174.8*	*3.1*	*3.0*	*2.3*	—	—	—	*199.1*	*200.8*	*177.1*	*144.2*	*137.4*	*118.4*	
1.7	1.1	17.4	18.5	21.7	119.8	138.8	157.4	14.8	24.2	34.6	—	—	0.3	134.6	163.0	192.3	97.7	92.5	108.2	19.
14.4	15.5	99.6	101.9	106.3	654.1	686.0	753.1	125.1	130.9	199.5	0.1	—	0.1	779.3	816.9	952.7	489.8	392.3	419.8	20.
19.7	21.2	—	32.3	34.2	—	−43.0	−49.9	—	43.0	49.9	—	—	—	—	—	—	—	387.2	492.1	
203.8	194.2	1 592.3	1 589.1	1 658.3	7 603.3	7 677.4	8 145.0	2 595.9	3 107.5	3 796.4	1.8	5.7	8.1	10 201.0 [g]	10 790.6 [g]	11 949.5 [g]	4 812.5	4 695.7	5 140.4	TOTAL EXPORTS

of these exports the commodity break-down is available and they have been included in "total world" and in "total overseas countries". For further details see Appendix B.
cluding special categories.

TABLE X

Imports of wheat (unmilled) into selected western European countries by area of origin

Quantities in thousands of tons ; values in millions of current dollars, c.i.f.

Area of origin	Year July/ June	IMPORTING COUNTRY															
		United Kingdom		France		Western Germany		Italy		Belgium-Luxembourg		Netherlands		Sweden		Total of countries listed	
		Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
United States	1953/54	71	6.2	. .	. .	653	49.3	106	8.7	98	6.7	207	16.1	—	. .	1 135	87.0
	1954/55	681	43.1	—	—	598	42.3	—	—	178	11.7	290	21.0	1	0.1	1 748	118.2
	1955/56	583	43.2	63	6.0	566	42.1	60	4.5	109	7.7	482	32.7	2	0.2	1 867	136.4
Canada	1953/54	2 209	181.0	15	1.2	555	47.9	118	9.4	368	25.7	331	26.8	—	. .	3 596	292.0
	1954/55	2 422	190.4	—	—	578	45.9	6	0.5	365	25.5	307	23.2	—	—	3 678	285.5
	1955/56	2 561	204.7	33	3.6	677	56.6	83	7.4	280	20.1	158	10.7	—	—	3 795	303.1
Total of dollar area [a]	1953/54	2 281	187.2	16	1.3	1 208	97.2	224	18.1	466	32.4	538	42.9	—	. .	4 733	379.1
	1954/55	3 103	233.5	—	—	1 176	88.2	6	0.5	543	37.2	597	44.2	1	0.1	5 426	403.7
	1955/56	3 144	247.9	97	9.6	1 252	99.5	144	11.9	390	27.8	640	43.4	3	0.2	5 670	440.3
Non-dollar Latin America	1953/54	342	26.8	1	0.1	323	24.3	220	23.1	129	9.0	95	7.3	—	. .	1 110	90.6
	1954/55	434	32.0	—	—	497	36.8	310	24.1	95	6.6	33	2.3	9	0.7	1 378	102.5
	1955/56	528	39.3	25	2.9	387	28.7	332	28.2	22	1.4	28	1.9	—	—	1 322	102.4
Overseas sterling area	1953/54	362	28.9	. .	. .	88	7.0	34	3.1	—	—	19	1.6	21	1.8	524	42.4
	1954/55	486	35.7	—	—	185	13.7	38	4.2	1	0.1	27	2.0	—	—	737	55.7
	1955/56	477	33.7	—	—	69	5.0	33	3.7	—	—	4	0.3	—	—	583	42.7
Affiliated overseas areas [b]	1953/54	. .	—	240	34.3	. .	. .	—	—	—	—	—	—	—	. .	240	34.3
	1954/55	4	0.3	215	29.6	30	2.7	4	0.3	5	0.3	—	—	—	—	258	33.2
	1955/56	6	0.5	248	33.3	45	4.4	38	4.1	1	0.1	—	—	—	—	338	42.4
Other overseas countries	1953/54	22	2.2	2	0.2	58	5.9	22	2.3	6	0.4	3	0.3	—	. .	113	11.3
	1954/55	11	1.0	1	0.1	70	6.9	19	2.0	5	0.5	3	0.3	1	0.1	110	10.9
	1955/56	—	—	—	—	—	—	12	1.4	—	—	—	—	—	—	12	1.4
Western Europe	1953/54	311	22.6	1	0.1	574	44.3	80	6.3	46	3.3	15	0.9	—	. .	1 027	77.5
	1954/55	573	38.3	—	—	783	54.6	29	2.2	5	0.4	14	0.9	—	—	1 404	96.4
	1955/56	584	38.5	80	10.9	738	51.0	151	15.6	19	1.9	127	7.6	58	3.7	1 757	129.2
Eastern Europe	1953/54	49	3.6	. .	. .	135	12.7	24	2.6	101	6.9	162	15.4	9	0.8	480	42.0
	1954/55	46	3.1	—	—	144	11.5	98	10.3	29	1.8	29	2.0	1	0.1	347	28.8
	1955/56	40	2.9	—	—	63	5.0	7	0.7	27	1.8	8	0.6	—	—	145	11.0
Not allocated	1953/54	2	—	1	0.1	1	0.1	—	—	—	—	—	—	—	0.1	4	0.3
	1954/55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1955/56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1953/54	3 369	271.3	261	36.1	2 387	191.5	604	55.5	748	52.0	832	68.4	30	2.7	8 231	677.5
	1954/55	4 657	343.9	216	29.7	2 885	214.4	504	43.6	683	46.9	703	51.7	12	1.0	9 660	731.2
	1955/56	4 779	362.8	450	56.7	2 554	193.6	717	65.6	459	33.0	807	53.8	61	3.9	9 827	769.4

Sources for Tables X to XX: Calculated from *Commodity Trade Statistics*, United Nations; *Foreign Trade Statistical Bulletins*, Series IV, O.E.E.C., Paris; and national trade statistics. For further details, see Appendix B.

[a] Includes very small quantities imported from " Other dollar countries ".

[b] Excluding the sterling area.

Table XI

Imports of sugar into selected western European countries by area of origin

Quantities in thousands of tons ; values in millions of current dollars, c.i.f.

Area of origin	Year July/ June	Importing country: United Kingdom		France		Western Germany		Italy		Belgium-Luxembourg		Netherlands		Sweden		Total of countries listed	
		Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
nited States . .	1953/54	122.5	2.9	—	—	0.1	—	..	..	..	—	7.0	0.2	..	—	129.6	3.1
	1954/55	60.9	1.3	0.1	—	0.7	0.1	—	—	4.1	0.1	3.4	0.1	—	—	69.2	1.6
	1955/56	75.1	2.1	—	—	0.1	—	..	—	1.0	—	11.6	0.4	—	—	87.8	2.5
ther dollar area	1953/54	1 394.4	108.0	64.9	7.6	120.3	10.9	2.4	0.4	55.3	5.2	165.2	12.6	27.0	2.7	1 829.5	147.4
	1954/55	807.9	51.9	52.5	5.8	187.7	16.4	2.1	0.2	21.3	1.8	154.5	12.0	33.8	3.1	1 259.8	91.2
	1955/56	904.5	66.8	71.4	6.6	95.2	8.5	1.1	0.1	31.0	2.7	135.0	11.7	93.4	7.3	1 331.6	103.7
otal of dollar area	1953/54	1 516.9	110.9	64.9	7.6	120.4	10.9	2.4	0.4	55.3	5.2	172.2	12.8	27.0	2.7	1 959.1	150.5
	1954/55	868.8	53.2	52.6	5.8	188.4	16.5	2.1	0.2	25.4	1.9	157.9	12.1	33.8	3.1	1 329.0	92.8
	1955/56	979.6	68.9	71.4	6.6	95.3	8.5	1.1	0.1	32.0	2.7	146.6	12.1	93.4	7.3	1 419.4	106.2
on-dollar Latin America	1953/54	28.4	2.6	6.8	0.7	17.4	1.5	..	..	9.2	0.9	11.6	0.9	..	—	73.4	6.6
	1954/55	41.5	3.6	2.9	0.3	4.5	0.4	0.4	—	—	—	15.5	1.3	2.0	0.1	66.8	5.7
	1955/56	106.7	9.5	14.4	1.2	4.3	0.4	..	—	—	—	41.3	3.6	12.9	1.2	179.6	15.9
verseas sterling area	1953/54	2 032.1	243.9	—	—	—	..	..	..	1.0	—	17.9	1.0	..	—	2 051.0	244.9
	1954/55	1 630.5	194.9	—	—	—	—	3.8	0.1	—	—	10.9	0.3	—	—	1 645.2	195.3
	1955/56	1 708.2	206.3	—	—	—	—	..	—	—	—	—	—	9.8	0.3	1 718.0	206.6
ffiliated overseas areas [a]	1953/54	7.9	0.2	220.3	44.4	—	..	..	..	..	—	1.5	0.2	..	—	229.7	44.8
	1954/55	4.3	0.1	277.5	54.5	—	—	1.8	0.1	—	—	0.5	—	—	—	284.1	54.7
	1955/56	21.8	0.5	246.1	48.0	—	—	..	—	—	—	2.1	—	—	—	270.0	48.5
ther overseas countries	1953/54	144.0	4.4	2.0	0.3	1.0	..	7.4	0.1	100.0	1.2	63.0	5.6	..	—	227.4	11.6
	1954/55	85.2	1.8	2.5	0.4	—	—	6.2	0.3	—	—	2.7	0.1	—	—	96.6	2.6
	1955/56	137.6	3.1	—	—	—	—	7.7	0.2	—	—	6.8	0.2	—	—	152.1	3.5
estern Europe .	1953/54	28.1	3.5	44.0	5.3	61.6	7.1	11.5	1.2	7.7	0.5	19.8	1.5	24.6	3.1	197.3	22.2
	1954/55	16.7	1.2	1.7	0.4	11.3	1.3	35.7	3.4	44.0	1.6	51.7	4.0	1.1	0.2	162.2	12.1
	1955/56	8.2	1.2	1.8	0.4	16.6	0.9	14.2	1.7	51.7	2.9	100.5	8.5	2.0	0.3	195.0	15.9
astern Europe .	1953/54	—	—	—	—	38.5	4.6	0.9	0.1	..	—	..	—	16.8	2.6	56.2	7.3
	1954/55	5.0	0.5	—	—	0.2	—	0.1	—	—	—	0.8	0.1	4.2	0.5	10.3	1.1
	1955/56	4.0	0.4	—	—	5.8	0.7	..	—	0.1	—	—	—	1.4	0.1	11.3	1.2
ot allocated . .	1953/54	—	—	—	—	—	0.1	1.0	0.1	1.1	—	0.9	—	1.0	—	4.0	0.2
	1954/55	—	—	—	—	—	—	—	—	—	—	0.4	—	—	—	0.4	—
	1955/56	—	—	—	—	—	—	0.2	—	—	—	—	—	—	—	0.2	—
Total	1953/54	3 757.4	365.5	338.0	58.3	238.9	24.2	23.2	1.9	84.3	7.8	286.9	22.0	69.4	8.4	4 798.1	488.1
	1954/55	2 652.0	255.3	337.2	61.4	204.4	18.2	50.1	4.1	69.4	3.5	240.4	17.9	41.1	3.9	3 594.6	364.3
	1955/56	2 966.1	289.9	333.7	56.2	122.0	10.5	23.2	2.0	83.8	5.6	297.3	24.4	119.5	9.2	3 945.6	397.8

Sources : See Table X.

Note. — No imports from Canada.

[a] Excluding the sterling area.

Table XII

Imports of coffee into selected western European countries by area of origin

Quantities in thousands of tons ; values in millions of current dollars, c.i.f.

Area of origin	Year July/June	Importing country															
		United Kingdom		France		Western Germany		Italy		Belgium-Luxembourg		Netherlands		Sweden		Total of countries listed	
		Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
United States . .	1953/54	—	—	—	—	0.1	0.2	0.2	0.2	0.8	1.1	0.1	0.1	0.2	0.4	1.4	2.0
	1954/55	—	—	0.1	0.1	0.2	0.4	0.4	0.6	0.4	0.6	—	0.1	0.1	0.3	1.2	2.1
	1955/56	—	—	—	—	0.4	0.6	0.4	0.6	0.8	1.1	0.2	0.4	0.2	0.3	2.0	3.0
Other dollar area	1953/54	—	—	7.2	12.2	38.0	53.2	12.6	15.6	17.6	24.9	7.8	11.8	10.3	14.7	93.5	132.4
	1954/55	0.8	1.2	11.1	17.9	52.6	90.9	10.9	15.4	11.7	17.6	10.3	16.4	14.5	23.9	111.9	183.3
	1955/56	2.1	2.8	7.9	11.3	65.1	94.4	12.1	14.8	16.6	21.5	11.3	16.2	12.7	18.5	127.8	179.5
Total of dollar area [a]	1953/54	—	—	7.2	12.2	38.1	53.4	12.8	15.8	18.4	26.0	7.9	11.9	10.5	15.1	94.9	134.4
	1954/55	1.0	2.1	11.2	18.0	52.8	91.3	11.3	16.0	12.1	18.2	10.3	16.5	14.6	24.2	113.3	186.3
	1955/56	2.2	3.2	7.9	11.3	65.5	95.2	12.5	15.4	17.4	22.6	11.5	16.6	12.9	18.8	129.9	183.1
Non-dollar Latin America	1953/54	3.0	4.1	69.5	89.1	44.1	60.1	27.7	33.8	16.1	20.7	6.9	9.5	37.1	54.1	204.4	271.4
	1954/55	3.0	4.2	43.7	55.6	37.2	63.4	24.7	33.1	9.6	13.2	1.6	2.6	33.1	54.4	152.9	226.5
	1955/56	6.0	6.7	37.2	37.6	43.3	55.0	27.3	29.8	16.9	17.9	8.7	10.9	39.3	50.9	178.7	208.8
Overseas sterling area	1953/54	24.7	26.3	0.8	1.0	11.9	18.4	7.4	8.7	1.3	1.5	0.6	0.8	0.6	0.8	47.3	57.5
	1954/55	21.0	23.5	0.2	0.2	13.8	27.0	13.6	16.9	1.7	1.9	1.1	1.3	0.8	1.0	52.2	71.8
	1955/56	30.6	26.4	0.2	0.1	15.0	21.6	13.5	12.1	2.5	2.1	2.2	2.3	1.2	1.6	65.2	66.2
Affiliated overseas areas [b]	1953/54	1.1	1.2	89.9	113.3	3.4	4.5	4.3	4.8	10.5	10.8	12.5	15.2	0.4	0.4	122.1	150.2
	1954/55	0.6	0.7	115.0	125.5	2.8	4.8	5.8	7.0	10.0	10.0	7.7	9.8	0.4	0.5	142.3	158.3
	1955/56	1.6	1.8	124.4	106.1	2.6	3.2	7.4	6.6	14.1	10.1	10.6	9.7	0.2	0.2	160.9	137.7
Other overseas countries	1953/54	0.9	0.8	2.5	3.2	1.6	2.7	17.4	20.2	3.7	4.2	3.4	4.0	1.0	1.6	30.5	36.7
	1954/55	2.3	2.8	1.8	2.3	1.0	1.8	13.6	18.4	2.0	2.2	2.5	2.9	1.2	2.1	24.4	32.5
	1955/56	0.6	0.7	2.2	2.4	0.9	1.6	12.7	12.7	2.0	1.6	3.6	3.1	1.3	1.9	23.3	24.0
Western Europe .	1953/54	0.3	0.5	—	—	0.6	1.7	—	—	1.5	2.6	0.4	0.8	—	—	2.8	5.6
	1954/55	1.0	1.4	—	—	0.3	0.8	0.1	0.1	1.4	2.5	0.6	0.9	—	—	3.4	5.7
	1955/56	0.9	1.2	—	—	0.3	1.0	—	—	3.1	4.5	0.4	0.5	—	—	4.7	7.2
Total	1953/54	30.0	32.9	169.9	218.8	99.7	140.8	69.6	83.3	51.5	65.8	31.7	42.2	49.6	72.0	502.0	655.8
	1954/55	28.9	34.7	171.9	201.6	107.9	189.1	69.1	91.5	36.8	48.0	23.8	34.0	50.1	82.2	488.5	681.1
	1955/56	41.9	40.0	171.9	157.5	127.6	177.6	73.4	76.6	56.0	58.8	37.0	43.1	54.9	73.4	562.7	627.0

Sources : See Table X.

Note. — No imports from eastern Europe.

[a] Includes very small quantities imported from Canada.

[b] Excluding the sterling area.

TABLE XIII

Imports of raw tobacco into selected western European countries by area of origin

Quantities in thousands of tons ; values in millions of current dollars, c.i.f.

rea of origin	Year July/ June	IMPORTING COUNTRY															
		United Kingdom		France		Western Germany		Italy		Belgium-Luxembourg		Netherlands		Sweden		Total of countries listed	
		Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
ited States . .	1953/54	57.2	91.8	2.4	3.4	26.0	36.6	1.3	2.5	9.6	9.5	11.7	12.0	4.8	7.8	113.0	163.6
	1954/55	68.9	110.8	6.8	11.0	25.1	36.5	1.7	3.1	9.1	8.6	15.6	16.0	5.4	9.3	132.6	195.3
	1955/56	94.6	151.1	3.5	4.3	27.2	40.2	1.3	2.4	9.5	8.7	9.9	9.8	4.3	6.8	150.3	223.3
nada	1953/54	14.7	19.8	—	—	—	—	—	—	—	0.1	0.1	—	—	—	14.8	19.9
	1954/55	18.2	25.8	—	—	—	—	—	—	0.2	0.1	0.3	0.2	—	—	18.7	26.1
	1955/56	9.6	13.1	—	—	0.2	0.2	—	—	0.2	0.2	0.2	0.2	0.8	1.5	11.0	15.2
her dollar area	1953/54	0.1	0.1	0.8	0.7	4.2	2.5	—	—	2.2	1.5	1.0	1.0	0.4	0.4	8.7	6.2
	1954/55	0.1	0.2	1.8	0.8	5.1	2.8	0.1	0.1	2.3	1.4	1.0	1.1	0.1	0.1	10.5	6.5
	1955/56	0.1	0.3	2.7	1.3	5.3	2.9	0.1	0.2	2.5	1.4	1.6	1.4	0.1	0.1	12.4	7.6
tal of dollar area	1953/54	72.0	111.7	3.2	4.1	30.2	39.1	1.3	2.5	11.8	11.1	12.8	13.0	5.2	8.2	136.5	189.7
	1954/55	87.2	136.8	8.6	11.8	30.2	39.3	1.8	3.2	11.6	10.1	16.9	17.3	5.5	9.4	161.8	227.9
	1955/56	104.3	164.5	6.2	5.6	32.7	43.3	1.4	2.6	12.2	10.3	11.7	11.4	5.2	8.4	173.7	246.1
on-dollar Latin America	1953/54	0.1	0.1	1.1	1.0	5.3	3.9	—	—	2.3	1.8	3.1	2.8	0.2	0.2	12.1	9.8
	1954/55	—	0.1	2.9	2.9	5.1	3.7	—	—	2.5	1.7	4.7	4.2	0.3	0.3	15.5	12.9
	1955/56	—	—	2.2	1.8	4.5	3.4	—	—	2.4	1.6	2.5	2.4	0.1	0.2	11.7	9.4
erseas sterling area	1953/54	48.1	64.6	0.1	0.1	0.5	1.0	—	—	1.9	0.8	4.3	2.4	1.1	0.8	56.0	69.7
	1954/55	54.6	75.4	1.4	1.1	1.1	0.8	—	—	2.2	1.0	5.8	3.1	1.1	1.2	66.2	82.6
	1955/56	46.2	66.3	0.7	0.3	1.1	1.0	—	—	2.2	1.0	3.5	2.0	0.5	0.5	54.2	71.1
filiated overseas areas [a]	1953/54	—	—	17.8	18.3	—	—	—	—	0.1	0.3	0.1	0.1	—	—	18.0	18.7
	1954/55	—	—	17.3	17.7	—	—	—	—	0.2	0.2	—	—	—	—	17.5	17.9
	1955/56	—	—	20.0	20.5	—	—	—	—	0.2	0.2	—	—	—	—	20.2	20.7
her overseas countries	1953/54	0.1	0.4	0.1	0.6	4.7	8.0	—	—	1.6	1.9	3.7	11.1	0.2	0.7	10.4	22.7
	1954/55	0.1	0.6	0.3	0.5	4.0	8.4	—	—	1.6	2.1	6.2	14.6	0.2	0.8	12.4	27.0
	1955/56	0.1	0.3	0.4	1.1	3.7	9.9	—	—	1.1	1.8	3.8	10.7	0.2	0.8	9.3	24.6
estern Europe .	1953/54	6.6	10.7	12.2	11.2	19.7	22.1	3.6	4.6	2.5	2.0	7.0	7.8	2.2	3.5	53.8	61.9
	1954/55	6.4	11.7	11.6	11.0	23.3	27.4	5.6	6.7	3.4	2.4	7.4	8.6	1.5	2.5	59.2	70.3
	1955/56	6.1	11.2	9.8	10.1	25.1	33.0	4.0	8.3	3.5	2.9	6.6	8.4	1.0	1.7	56.1	75.6
stern Europe .	1953/54	—	—	—	—	0.1	0.1	1.3	2.1	0.2	0.3	—	—	—	0.1	1.6	2.6
	1954/55	—	—	—	—	0.5	0.6	2.7	3.3	0.4	0.2	—	—	0.1	0.1	3.7	4.2
	1955/56	—	—	0.5	0.5	2.3	2.3	1.3	1.7	0.7	0.4	—	—	0.1	0.1	4.9	5.0
Total	1953/54	126.9	187.5	34.5	35.3	60.5	74.2	6.2	9.2	20.4	18.2	31.0	37.2	8.9	13.5	288.4	375.1
	1954/55	148.3	224.6	42.1	45.0	64.2	80.2	10.1	13.2	21.9	17.7	41.0	47.8	8.7	14.3	336.3	442.8
	1955/56	156.7	242.3	39.8	39.9	69.4	92.9	6.7	12.6	22.3	18.2	28.1	34.9	7.1	11.7	330.1	452.5

Sources : See Table X.

[a] Excluding the sterling area.

Table XIV

Imports of rubber into selected western European countries by area of origin

Quantities in thousands of tons ; values in millions of current dollars, c.i.f.

Area of origin	Year July/June	Importing country: United Kingdom		France		Western Germany		Italy		Belgium-Luxembourg		Netherlands		Sweden		Total of countries listed	
		Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
United States . .	1953/54	3.9	4.2	4.3	2.5	5.4	3.8	3.7	2.4	0.4	0.4	0.2	0.5	0.9	0.6	18.8	14.4
	1954/55	6.1	5.8	5.2	3.6	9.9	6.0	6.4	3.9	1.1	0.6	1.5	1.0	1.4	1.0	31.6	21.9
	1955/56	23.8	16.8	19.0	12.0	23.2	13.6	11.0	6.8	4.3	2.4	3.1	1.8	5.0	3.0	89.4	56.4
Canada	1953/54	5.0	3.7	12.1	7.2	6.0	4.0	5.1	3.3	2.0	1.0	0.3	0.3	0.1	0.1	30.6	19.6
	1954/55	8.1	5.5	12.2	7.0	6.4	3.9	7.0	4.0	2.4	1.4	0.7	0.5	0.3	0.2	37.1	22.5
	1955/56	17.6	10.9	15.2	9.0	8.1	5.1	6.8	3.6	2.0	1.2	1.2	0.8	0.4	0.2	51.3	30.8
Total of dollar area [a]	1953/54	8.9	7.9	16.4	9.7	11.4	7.8	8.8	5.7	2.4	1.4	0.5	0.8	1.0	0.7	49.4	34.0
	1954/55	14.2	11.3	17.4	10.6	16.3	9.9	13.4	7.9	3.5	2.0	2.2	1.5	1.7	1.2	68.7	44.4
	1955/56	41.4	27.7	34.2	21.0	31.5	18.8	17.8	10.4	6.3	3.6	4.3	2.6	5.4	3.2	140.9	87.3
Non-dollar Latin America	1953/54	0.3	0.4	—	—	0.1	—	—	—	—	—	—	—	—	—	0.4	0.4
	1954/55	0.6	0.6	—	—	—	—	—	—	—	—	—	—	—	—	0.6	0.6
	1955/56	0.6	0.7	—	—	—	—	—	—	—	—	—	—	—	—	0.6	0.7
Overseas sterling area	1953/54	237.5	117.1	92.5	41.8	75.9	33.3	50.2	22.7	6.5	3.1	6.0	2.4	20.3	8.8	488.9	229.2
	1954/55	246.0	155.6	105.7	60.8	110.5	61.7	53.6	30.1	7.4	4.4	7.9	4.4	23.4	12.8	554.5	329.8
	1955/56	305.7	256.2	88.9	70.7	101.0	75.2	55.7	43.8	5.7	4.4	5.8	4.2	18.5	14.3	581.3	468.8
Affiliated overseas areas [b]	1953/54	0.4	0.1	3.7	1.9	1.2	0.7	0.8	0.2	9.3	3.6	0.3	0.3	0.1	—	15.8	6.8
	1954/55	—	—	9.0	5.0	2.6	1.4	0.2	0.1	10.8	5.9	0.9	0.5	0.1	0.1	23.6	13.0
	1955/56	0.7	0.6	5.5	4.3	3.1	2.6	0.2	0.2	11.3	8.1	2.8	2.1	0.1	0.1	23.7	18.0
Other overseas countries	1953/54	13.9	7.0	30.7	16.2	54.7	24.3	5.8	2.5	3.0	1.5	11.7	5.3	1.3	0.6	121.1	57.4
	1954/55	19.0	11.8	23.6	13.9	49.0	27.7	3.2	1.6	3.9	2.1	11.4	6.2	1.2	0.8	111.3	64.1
	1955/56	25.8	22.1	52.7	41.6	48.6	38.5	3.9	2.9	3.6	2.4	10.1	7.0	0.7	0.5	145.4	115.0
Western Europe .	1953/54	0.6	0.3	4.0	0.8	4.3	0.5	4.3	0.3	1.8	0.4	4.8	1.0	1.0	0.2	20.8	3.5
	1954/55	1.2	0.6	3.2	0.7	9.7	0.8	3.5	0.5	1.5	0.4	5.5	1.7	1.3	0.2	25.9	4.9
	1955/56	3.7	2.2	9.6	1.2	11.1	1.1	5.0	0.7	2.0	0.7	5.6	1.7	1.9	0.5	38.9	8.1
Eastern Europe .	1953/54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1954/55	—	—	0.4	0.1	—	—	—	—	0.1	—	—	—	0.1	—	0.6	0.1
	1955/56	—	—	1.1	0.5	0.2	—	0.4	0.1	0.3	0.2	—	—	0.4	0.3	2.4	1.1
Total	1953/54	261.6	132.8	147.3	70.4	147.6	66.6	69.9	31.4	23.0	10.0	23.3	9.8	23.7	10.3	696.4	331.3
	1954/55	281.0	179.9	159.3	91.1	188.1	101.5	73.9	40.2	27.2	14.8	27.9	14.3	27.8	15.1	785.2	456.9
	1955/56	377.9	309.5	192.0	139.3	195.5	136.2	83.0	58.1	29.2	19.4	28.6	17.6	27.0	18.9	933.2	699.0

Sources : See Table X.

[a] Includes very small quantities imported from " Other dollar area ".

[b] Excluding the sterling area.

TABLE XV

Imports of timber[a] into selected western European countries by area of origin

Values in millions of current dollars, c.i.f.

rea of origin	Year July/ June	IMPORTING COUNTRY							
		United Kingdom	France	Western Germany	Italy	Belgium-Luxembourg	Netherlands	Sweden	Total of countries listed
ted States . .	1953/54	8.2	1.8	3.2	1.7	1.2	1.7	0.2	18.0
	1954/55	6.7	2.4	5.3	2.7	1.8	1.2	0.7	20.8
	1955/56	11.3	2.6	8.2	3.5	1.5	1.2	0.5	28.8
ada	1953/54	82.5	0.8	1.3	0.6	1.3	1.2	—	87.7
	1954/55	108.9	1.9	2.5	1.2	0.5	1.0	—	116.0
	1955/56	107.6	6.1	2.3	1.8	0.3	3.0	—	121.1
er dollar area	1953/54	0.9	0.2	1.1	0.2	—	0.3	—	2.7
	1954/55	1.1	0.2	1.0	0.2	0.2	0.3	0.1	3.1
	1955/56	1.5	0.2	1.5	0.2	0.2	0.5	—	4.1
al of dollar rea	1953/54	91.6	2.8	5.6	2.5	2.5	3.2	0.2	108.4
	1954/55	116.7	4.5	8.8	4.1	2.5	2.5	0.8	139.9
	1955/56	120.4	8.9	12.0	5.5	2.0	4.7	0.5	154.0
n-dollar Latin merica	1953/54	14.4	0.3	3.0	0.3	0.9	0.7	—	19.6
	1954/55	9.1	0.4	4.2	0.4	2.0	0.8	—	16.9
	1955/56	12.1	0.4	2.5	0.1	0.5	0.4	—	16.0
rseas sterling rea	1953/54	45.8	0.4	6.0	2.0	0.3	1.3	1.0	56.8
	1954/55	38.0	0.7	10.5	3.6	0.7	1.7	1.0	56.2
	1955/56	42.5	0.9	15.0	6.0	0.7	2.3	1.1	68.5
liated overseas reas[b]	1953/54	3.7	15.5	19.2	0.8	1.6	3.8	0.7	45.3
	1954/55	3.6	17.0	22.6	0.4	2.1	5.2	0.7	51.6
	1955/56	3.6	23.4	26.0	0.5	3.5	5.4	0.7	63.1
er overseas ountries	1953/54	5.9	0.2	1.4	1.0	1.7	2.7	0.9	13.8
	1954/55	12.0	0.6	1.7	0.9	1.9	2.8	1.3	21.2
	1955/56	12.8	0.3	2.5	1.2	2.8	4.3	2.1	26.0
stern Europe .	1953/54	188.4	23.6	90.1	63.6	22.1	78.6	12.8	479.2
	1954/55	211.4	23.0	148.3	70.7	30.0	87.1	13.2	583.7
	1955/56	226.1	44.6	158.6	81.3	35.8	85.3	12.1	643.8
tern Europe .	1953/54	56.6	2.5	4.6	5.3	8.5	11.8	0.3	89.6
	1954/55	65.8	3.6	16.1	7.5	10.9	13.8	0.4	118.1
	1955/56	89.5	7.3	20.8	7.7	14.6	17.9	0.4	158.2
otal	1953/54	406.4	45.3	129.9	75.5	37.6	102.1	15.9	812.7
	1954/55	456.6	49.8	212.2	87.6	50.1	113.9	17.4	987.6
	1955/56	507.0	85.8	237.4	102.3	59.9	120.3	16.9	1129.6

Sources: See Table X.

[a] Includes round, hewn and sawn wood.

[b] Excluding the sterling area.

TABLE XVI

Imports of raw wool into selected western European countries by area of origin

Quantities in thousands of tons ; values in millions of current dollars, c.i.f.

Area of origin	Year July/ June	IMPORTING COUNTRY															
		United Kingdom		France		Western Germany		Italy		Belgium-Luxembourg		Netherlands		Sweden		Total of countries listed	
		Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
United States . .	1953/54	..	..	—	..	—	—	—	0.1	—	—	..	..	—	—	..	0.
	1954/55	..	..	—	—	0.1	0.1	..	..	..	..	..	..	—	—	0.1	0.
	1955/56	..	..	—	—	—	—	—	—	..	..	..	..	—	—	..	.
Non-dollar Latin America	1953/54	26.0	43.4	15.5	22.8	17.7	25.7	6.2	10.4	7.0	8.5	1.9	3.1	0.2	1.7	74.5	115.
	1954/55	25.5	36.5	13.1	18.9	17.0	25.4	1.7	2.9	3.9	4.8	1.8	3.1	0.3	0.6	63.3	92.
	1955/56	34.3	45.3	19.7	23.6	17.4	24.9	4.2	5.9	7.9	8.9	3.3	5.2	0.6	1.1	87.4	114.
Overseas sterling area	1953/54	273.9	467.6	149.0	266.0	52.3	89.6	73.7	147.6	56.9	84.4	5.4	9.6	3.0	5.9	614.2	1 070.
	1954/55	265.8	430.0	125.2	202.3	69.6	109.3	52.5	94.0	52.0	69.6	6.7	9.8	3.6	7.2	575.4	922.
	1955/56	272.7	392.5	155.1	217.1	77.3	118.4	49.0	82.4	62.6	74.4	7.6	10.8	3.9	7.0	628.2	902.
Affiliated overseas areas [a]	1953/54	0.4	0.7	5.9	5.9	0.1	0.1	0.1	0.2	0.1	0.5	..	0.1	—	—	6.6	7.
	1954/55	0.7	1.0	5.5	5.0	0.2	0.2	0.3	0.3	0.8	1.0	..	..	—	—	7.5	7.
	1955/56	0.3	0.5	4.3	4.4	0.2	0.2	0.4	0.4	0.6	0.7	..	..	—	—	5.8	6.
Other overseas countries	1953/54	0.8	0.7	0.2	0.2	1.8	1.2	1.2	1.0	0.2	0.2	..	..	—	—	4.2	3.
	1954/55	0.5	0.5	0.2	0.2	0.8	0.7	0.4	0.6	0.1	0.1	0.4	0.3	—	—	2.4	2.
	1955/56	0.5	0.5	0.2	0.2	0.5	0.5	0.4	0.7	0.3	0.4	0.4	0.4	—	—	2.3	2.
Western Europe .	1953/54	12.1	24.6	1.6	2.0	11.3	23.6	9.8	18.4	6.4	8.9	2.9	7.6	1.6	2.0	45.7	87.
	1954/55	13.3	23.3	1.2	1.9	12.0	23.0	8.8	16.7	8.7	12.6	4.4	7.9	1.1	2.0	49.5	87.
	1955/56	15.4	25.4	1.4	2.4	13.4	24.8	9.6	18.0	9.1	11.8	5.0	8.6	1.3	2.4	55.2	93.
Not allocated [b] .	1953/54	4.4	5.4	—	0.1	—	—	—	—	—	—	1.0	0.1	—	—	5.4	5.
	1954/55	3.0	4.0	—	—	—	—	3.1	4.0	0.1	0.2	0.1	0.1	—	—	6.3	8.
	1955/56	3.2	4.1	—	—	—	—	—	—	0.6	0.8	0.1	0.1	—	—	3.9	5.
Total	1953/54	317.6	542.4	172.2	297.0	83.2	140.2	91.0	177.7	70.6	102.5	11.2	20.5	4.8	9.6	750.6	1 289.
	1954/55	308.8	495.3	145.2	228.3	99.7	158.7	66.8	118.5	65.6	88.3	13.4	21.2	5.0	9.8	704.5	1 120.
	1955/56	326.4	468.3	180.7	247.7	108.8	168.8	63.6	107.4	81.1	97.0	16.4	25.1	5.8	10.5	782.8	1 124.

Sources : See Table X.

NOTE. — No imports from Canada and " Other dollar area ".

[a] Excluding the sterling area.

[b] Includes very small quantities imported from eastern Europe.

TABLE XVII

Imports of raw cotton into selected western European countries by area of origin

Quantities in thousands of tons ; values in millions of current dollars, c.i.f.

rea of origin	Year July/ June	IMPORTING COUNTRY															
		United Kingdom		France		Western Germany		Italy		Belgium-Luxembourg		Netherlands		Sweden		Total of countries listed	
		Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
ted States . .	1953/54	103.5	77.2	114.1	89.5	105.4	71.1	53.4	44.4	26.4	20.2	31.7	26.8	10.2	8.4	444.7	337.6
	1954/55	141.8	105.6	120.2	93.3	118.6	79.1	58.6	48.9	25.5	18.7	43.5	38.0	12.1	10.1	520.3	393.7
	1955/56	91.0	52.5	66.3	42.1	64.3	22.5	34.1	25.7	15.7	9.7	31.8	25.8	6.4	5.0	309.6	183.3
er dollar area	1953/54	11.6	8.6	1.4	1.1	37.6	28.8	3.3	1.9	14.8	12.3	8.4	6.9	3.4	2.4	80.5	62.0
	1954/55	16.1	12.9	3.2	2.9	49.7	40.4	2.6	2.2	23.4	19.9	7.1	6.0	5.1	4.3	107.2	88.6
	1955/56	24.4	18.3	10.2	7.3	126.2	94.2	11.5	9.3	26.6	20.7	15.4	11.8	10.1	8.1	224.4	169.7
al of dollar rea [a]	1953/54	115.1	85.8	115.5	90.6	143.0	99.9	56.7	46.3	41.2	32.5	40.1	33.9	13.6	10.8	525.2	399.8
	1954/55	157.9	118.5	123.4	96.2	168.3	119.5	61.2	51.1	48.9	38.6	50.6	44.0	17.2	14.4	627.5	482.3
	1955/56	116.0	71.2	76.5	49.4	190.5	116.7	45.6	35.0	42.4	30.4	47.2	37.6	16.5	13.1	534.7	353.4
n-dollar Latin merica	1953/54	89.2	62.1	29.0	22.8	70.5	45.8	18.6	13.2	23.9	18.2	10.5	7.7	7.7	5.4	249.4	175.2
	1954/55	70.0	46.8	24.8	21.6	60.7	43.4	20.4	15.8	21.9	16.6	7.7	6.3	4.1	3.5	209.6	154.0
	1955/56	58.1	38.9	14.8	12.4	37.5	26.9	11.4	8.4	11.6	8.5	5.7	4.7	3.7	2.8	142.8	102.6
rseas sterling rea	1953/54	96.2	68.6	24.1	17.2	28.7	18.8	22.6	16.3	11.5	5.6	6.2	3.9	4.4	3.2	193.7	133.6
	1954/55	72.9	55.7	15.2	11.0	22.2	15.6	10.4	8.2	9.4	5.4	3.5	2.4	2.7	1.8	136.3	100.1
	1955/56	96.4	65.9	29.6	19.1	35.6	24.5	20.0	13.2	19.4	9.9	5.7	3.0	3.0	1.8	209.7	137.4
liated overseas reas [b]	1953/54	7.9	5.1	38.0	29.7	10.3	8.3	0.6	0.5	17.8	13.4	—	—	2.4	1.8	77.0	58.8
	1954/55	5.3	2.6	43.9	36.2	6.2	5.2	0.8	0.3	16.8	13.6	—	—	2.3	2.0	75.3	59.9
	1955/56	6.6	3.2	53.6	41.6	8.4	6.7	—	—	16.1	11.5	—	—	2.3	1.7	87.0	64.7
er overseas ountries	1953/54	111.6	100.8	82.3	78.4	57.9	52.2	39.5	40.7	10.2	8.0	6.5	5.8	2.4	2.3	310.4	288.2
	1954/55	64.8	64.6	83.9	84.0	41.9	41.1	36.6	37.9	8.2	7.3	5.5	5.5	2.1	1.9	243.0	242.3
	1955/56	79.0	70.4	93.4	81.4	43.2	39.5	48.6	45.4	7.7	6.5	5.7	5.2	1.6	1.5	279.2	249.9
stern Europe .	1953/54	19.0	10.1	19.1	14.0	29.4	17.2	30.8	23.6	8.4	3.3	18.0	10.5	4.9	2.0	129.6	80.7
	1954/55	16.7	9.9	19.9	14.5	27.9	15.7	15.0	11.2	11.1	5.3	16.6	9.6	5.9	1.9	113.1	68.1
	1955/56	22.1	12.5	34.5	23.0	24.4	12.1	36.0	27.1	7.9	3.2	17.3	9.1	5.6	2.0	147.8	89.0
tern Europe .	1953/54	6.2	3.4	4.0	3.0	—	—	3.2	2.7	6.6	2.7	1.2	0.9	0.2	0.1	21.4	12.8
	1954/55	27.0	20.3	7.7	6.6	1.5	0.9	9.5	8.3	2.9	1.8	1.7	1.3	3.3	2.5	53.6	41.7
	1955/56	19.4	12.9	9.2	7.0	11.2	8.0	4.8	3.9	3.5	1.5	0.8	0.6	1.1	0.7	50.0	34.6
otal	1953/54	445.2	335.9	312.0	255.7	339.8	242.2	172.0	143.3	119.6	83.7	82.5	62.7	35.6	25.6	1506.7	1149.1
	1954/55	414.6	318.4	318.8	270.1	328.7	241.4	153.9	132.8	119.2	88.6	85.6	69.1	37.6	28.0	1458.4	1148.4
	1955/56	397.6	275.0	311.6	233.9	350.8	234.4	166.4	133.0	108.6	71.5	82.4	60.2	33.8	23.6	1451.2	1031.6

Sources : See Table X.

[a] Includes very small quantities imported from Canada.

[b] Excluding the sterling area.

TABLE XVIII

Imports of crude petroleum into selected western European countries by area of origin

Quantities in thousands of tons ; values in millions of current dollars, c.i.f.

Area of origin	Year July/June	IMPORTING COUNTRY															
		United Kingdom		France		Western Germany		Italy		Belgium-Luxembourg		Netherlands		Sweden		Total of countries listed	
		Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
United States	1953/54	126.9	3.7	73.4	2.1	—	—	76.5	2.0	—	—	..	..	—	—	276.8	7.8
	1954/55	198.1	5.5	91.1	2.8	—	—	4.2	0.1	—	—	—	—	—	—	293.4	8.4
	1955/56	71.2 [a]	2.5 [a]	72.7	2.2	—	—	152.2	2.8	—	—	—	—	2.2	0.2	298.3	7.7
Other dollar area	1953/54	1 183.3	27.9	973.0	21.0	801.8	16.4	398.5	7.4	75.8	1.6	540.1	10.2	146.6	2.6	4 119.1	87.1
	1954/55	1 776.5	41.9	843.6	18.0	776.9	15.3	513.4	8.4	149.9	3.6	1 897.0	35.1	437.4	9.1	6 394.7	131.4
	1955/56	2 899.4	71.0	816.6	16.4	868.2	17.0	677.8	12.5	215.3	4.8	4 177.7	83.7	160.4	3.4	9 815.4	208.8
Total of dollar area	1953/54	1 310.2	31.6	1 046.4	23.1	801.8	16.4	475.0	9.4	75.8	1.6	540.1	10.2	146.6	2.6	4 395.9	94.9
	1954/55	1 974.6	47.4	934.7	20.8	776.9	15.3	517.6	8.5	149.9	3.6	1 897.0	35.1	437.4	9.1	6 688.1	139.8
	1955/56	2 970.6	73.5	889.3	18.6	868.2	17.0	830.0	15.3	215.3	4.8	4 177.7	83.7	162.6	3.6	10 113.7	216.5
Non-dollar Latin America .	1953/54	142.6	4.2	—	—	—	—	..	—	..	—	..	..	—	—	142.6	4.2
	1954/55	130.8	3.9	—	—	—	—	—	—	4.3	0.1	—	—	—	—	135.1	4.0
	1955/56	133.0	4.0	—	—	—	—	—	—	—	—	—	—	—	—	133.0	4.0
Overseas sterling area . . .	1953/54	25 000.5	546.0	17 267.2	363.8	2 228.2	49.4	9 010.7	180.7	2 175.2	54.8	4 585.1	97.7	886.0	18.8	61 152.9	1 311.2
	1954/55	24 279.1	527.2	18 056.4	376.6	2 913.1	63.3	9 847.9	194.2	2 460.7	55.2	4 966.6	108.0	442.8	8.9	62 966.6	1 333.4
	1955/56	21 619.6	477.1	19 929.0	427.8	3 741.1	84.0	11 649.6	232.3	2 928.5	63.4	4 704.8	113.1	303.3	6.3	64 875.9	1 404.0
Affiliated overseas areas [b] .	1953/54	1 017.0	23.0	182.2	3.6	45.0	0.9	129.2	2.4	94.8	1.7	208.6	3.3	—	—	1 676.8	34.9
	1954/55	1 016.1	23.3	411.7	8.0	—	—	141.7	2.5	75.1	1.3	354.1	7.4	—	—	1 998.7	42.5
	1955/56	1 149.9	27.1	528.6	10.1	2 947.4	65.6	143.2	2.3	114.9	2.0	110.9	2.2	—	—	4 994.9	109.3
Other overseas countries . .	1953/54	120.4	2.9	4 610.5	106.2	2 340.0	52.9	4 522.2	89.0	942.5	19.7	2 686.8	60.8	495.2	10.8	15 717.6	342.3
	1954/55	877.0	19.9	3 779.4	85.9	2 832.5	62.9	5 342.3	100.6	1 402.0	29.1	3 570.6	81.4	991.9	21.7	18 795.7	401.5
	1955/56	2 560.1	58.1	4 286.7	96.8	—	—	4 990.6	97.4	2 216.9	48.3	3 150.7	73.7	505.8	11.0	17 710.8	385.3
Western Europe	1953/54	49.0	1.8	—	—	—	—	..	—	8.0	0.2	..	..	—	—	57.0	2.0
	1954/55	182.8	6.3	—	—	—	—	—	—	1.5	—	—	—	—	—	184.3	6.3
	1955/56	396.1	15.0	—	—	—	—	—	—	16.6	0.4	—	—	27.7	1.9	440.4	17.3
Eastern Europe	1953/54	..	—	35.0	0.7	—	—	190.6	3.5	..	—	..	..	—	—	225.6	4.2
	1954/55	—	—	171.9	3.6	—	—	139.2	2.5	—	—	—	—	—	—	311.1	6.1
	1955/56	—	—	163.3	3.3	—	—	93.2	1.7	—	—	—	—	0.4	—	256.9	5.0
Not allocated	1953/54	4.0	—	—	—	—	—	1.0	—	1.0	—	1.0	0.1	—	—	7.0	0.1
	1954/55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1955/56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1953/54	27 643.7	609.5	23 141.3	497.4	5 415.0	119.6	14 328.7	285.0	3 297.3	78.0	8 021.6	172.1	1 527.8	32.2	83 375.4	1 793.8
	1954/55	28 460.4	628.0	23 354.1	494.9	6 522.5	141.5	15 988.7	308.3	4 093.5	89.3	10 788.3	231.9	1 872.1	39.7	91 079.6	1 933.6
	1955/56	28 829.3	654.8	25 796.9	556.6	7 556.7	166.6	17 706.6	349.0	5 492.2	118.9	12 144.1	272.7	999.8	22.8	98 525.6	2 141.4

Sources : See Table X.

[a] The sharp decrease in 1955/56 is mainly due to the revised cumulative figures given by the national trade statistics of the United Kingdom beginning with October 1955.

[b] Excluding the sterling area.

TABLE XIX

Imports of refined petroleum into selected western European countries by area of origin

Quantities in thousands of tons ; values in millions of current dollars, c.i.f.

ea of origin	Year July/ June	IMPORTING COUNTRY															
		United Kingdom		France		Western Germany		Italy		Belgium-Luxembourg		Netherlands		Sweden		Total of countries listed	
		Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
d States . .	1953/54	..	68.7	186.5	14.5	173.1	9.8	90.5	9.2	246.0	14.5	69.2	5.7	..	9.2	..	131.6
	1954/55	..	56.4	206.4	15.5	138.9	8.3	125.1	11.1	176.7	12.5	93.5	6.9	..	6.4	..	117.1
	1955/56	..	67.3	205.9	15.5	354.3	17.5	113.8	10.7	205.6	13.8	116.1	8.0	..	8.0	..	140.8
da	1953/54	..	0.8	—	—	—	—	8.2	0.6	..	..	—	—	..	..	..	1.4
	1954/55	..	0.8	—	—	—	—	4.8	0.3	..	..	—	—	..	—	..	1.1
	1955/56	..	0.8	—	—	—	—	5.3	0.3	..	..	—	—	..	—	..	1.1
dollar area	1953/54	..	15.6	73.9	2.4	65.3	2.3	2.7	—	203.0	6.2	243.1	5.0	..	19.4	..	50.9
	1954/55	..	21.2	40.2	1.2	98.5	3.1	15.8	0.3	157.2	4.9	246.1	5.4	..	15.0	..	51.1
	1955/56	..	30.7	77.8	2.3	477.6	11.2	101.9	1.9	253.9	6.9	83.9	2.9	..	33.2	..	89.1
of dollar a	1953/54	..	85.1	260.4	16.9	238.4	12.1	101.4	9.8	449.0	20.7	312.3	10.7	..	28.6	..	183.9
	1954/55	..	78.4	246.6	16.7	237.4	11.4	145.7	11.7	333.9	17.4	339.6	12.3	..	21.4	..	169.3
	1955/56	..	98.8	283.7	17.8	831.9	28.7	221.0	12.9	459.5	20.7	200.0	10.9	..	41.2	..	231.0
dollar Latin nerica	1953/54	..	—	—	—	—	—	2.0	0.1	..	..	—	—	..	..	..	0.1
	1954/55	..	0.6	—	—	5.7	0.2	—	—	..	..	6.4	0.2	..	—	..	1.0
	1955/56	..	0.6	—	—	14.1	0.4	—	—	0.3	..	29.8	1.0	..	—	..	2.0
seas sterling a	1953/54	..	56.7	—	—	—	—	3.4	0.2	30.8	1.1	213.7	3.6	..	6.6	..	68.2
	1954/55	..	68.1	25.3	1.2	4.4	0.1	52.1	1.2	70.1	2.5	213.7	3.8	..	9.0	..	85.9
	1955/56	..	85.8	134.8	4.5	5.9	0.2	15.9	0.4	143.4	4.3	202.3	5.1	..	26.5	..	126.8
ated overseas as [a]	1953/54	..	74.9	35.9	0.8	125.5	5.1	6.8	0.3	299.0	9.9	624.1	18.1	..	32.3	..	141.4
	1954/55	..	62.7	13.8	0.6	431.8	14.9	21.1	0.9	367.3	9.3	492.6	18.2	..	23.3	..	129.9
	1955/56	..	68.9	48.7	2.0	1 127.1	33.2	44.5	2.0	292.4	6.4	402.4	14.5	..	31.5	..	158.5
overseas ntries	1953/54	..	1.5	31.1	1.2	12.0	0.8	12.8	0.6	16.3	0.5	202.3	4.7	..	0.1	..	9.4
	1954/55	..	4.2	45.1	1.4	3.2	0.5	143.8	3.0	71.1	2.1	198.6	4.6	..	1.3	..	17.1
	1955/56	..	7.5	79.9	3.2	26.6	0.9	65.1	1.8	45.5	1.4	182.0	4.8	..	3.9	..	23.5
ern Europe .	1953/54	..	44.3	443.1	15.7	715.0	22.6	328.6	9.4	1 102.1	33.6	559.7	17.6	..	63.2	..	206.4
	1954/55	..	52.1	329.1	11.5	1 179.0	33.0	281.0	8.3	1 239.6	37.2	961.0	28.5	..	89.1	..	259.7
	1955/56	..	87.1	335.4	11.7	1 836.2	55.3	96.8	4.4	1 454.4	44.1	1 252.0	39.2	..	106.5	..	348.3
rn Europe .	1953/54	..	0.5	187.7	5.6	76.5	2.4	123.4	2.4	129.1	2.1	10.1	0.2	..	10.7	..	23.9
	1954/55	..	1.4	349.9	11.3	140.8	3.7	137.9	2.5	191.9	3.5	9.3	0.2	..	20.4	..	43.0
	1955/56	..	1.7	383.1	12.2	162.5	4.5	44.8	1.1	114.3	2.5	11.6	0.4	..	20.9	..	43.3
allocated . .	1953/54	..	—	—	—	—	—	—	—	2.7	0.5	—	—	..	0.2	..	0.7
	1954/55	..	—	—	—	—	—	0.1	—	4.8	0.2	—	—	..	—	..	0.2
	1955/56	..	—	—	—	—	—	0.2	—	1.2	0.1	—	—	..	—	..	0.1
. . . .	1953/54	..	263.0	958.2	40.2	1 167.4	43.0	578.4	22.8	2 029.0	68.4	1 922.2	54.9	..	141.7	..	634.0
	1954/55	..	267.5	1 009.8	42.7	2 002.3	63.8	781.7	27.6	2 277.8	72.2	2 221.2	67.8	..	164.5	..	706.1
	1955/56	..	350.4	1 265.6	51.4	4 004.3	123.2	488.3	22.6	2 511.0	79.5	2 280.1	75.9	..	230.5	..	933.5

urces : See Table X.

[a] Excluding the sterling area.

Table XX

Imports of copper into selected western European countries by area of origin

Quantities in thousands of tons ; values in millions of current dollars, c.i.f.

Area of origin	Year July/June	Importing country															
		United Kingdom		France		Western Germany		Italy		Belgium-Luxembourg		Netherlands		Sweden		Total of countries listed	
		Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
United States	1953/54	22.5	15.0	16.1	11.3	27.5	17.5	6.6	4.9	1.0	0.6	10.1	6.6	1.9	1.4	85.7	5
	1954/55	33.2	26.6	46.0	35.8	48.1	35.6	15.3	10.6	1.6	1.2	15.7	11.6	6.8	5.1	166.7	12
	1955/56	10.9	10.9	61.3	63.8	37.7	35.7	12.4	10.8	0.2	0.2	10.2	9.3	3.4	3.3	136.1	13
Canada	1953/54	60.5	40.8	3.6	2.4	1.7	1.2	—	—	—	—	0.1	0.1	0.4	0.3	66.3	4
	1954/55	66.6	53.1	7.1	5.5	1.0	0.9	..	..	—	—	—	—	—	—	74.7	5
	1955/56	60.5	62.7	10.2	10.5	1.7	1.7	—	—	—	—	—	—	—	—	72.4	7
Other dollar area	1953/54	..	..	—	—	1.7	1.1	—	—	—	—	—	—	—	—	1.7	
	1954/55	1.2	0.9	—	—	13.0	9.4	..	..	—	—	—	—	0.1	0.1	14.3	1
	1955/56	0.6	0.5	—	—	2.1	2.0	—	—	0.2	0.1	—	—	—	—	2.9	
Total of dollar area	1953/54	83.0	55.8	19.7	13.7	30.9	19.8	6.6	4.9	1.0	0.6	10.2	6.7	2.3	1.7	153.7	10
	1954/55	101.0	80.6	53.1	41.3	62.1	45.9	15.3	10.6	1.6	1.2	15.7	11.6	6.9	5.2	255.7	19
	1955/56	72.0	74.1	71.5	74.3	41.5	39.4	12.4	10.8	0.4	0.3	10.2	9.3	3.4	3.3	211.4	21
Non-dollar Latin America	1953/54	9.6	6.3	2.9	2.1	16.0	10.3	0.7	0.8	0.2	0.1	—	—	0.2	0.2	29.6	1
	1954/55	56.6	43.1	2.2	1.6	61.4	45.0	19.6	13.5	3.0	1.6	2.9	2.1	4.5	3.2	150.2	11
	1955/56	74.7	69.2	0.9	0.9	75.2	75.0	31.5	28.4	2.1	2.0	1.9	1.9	—	—	186.3	17
Overseas sterling area	1953/54	245.5	158.5	7.8	5.1	26.2	15.8	19.9	12.5	14.0	8.0	—	—	19.8	12.5	333.2	21
	1954/55	216.2	163.3	8.4	6.1	20.0	13.3	30.9	20.8	15.2	9.7	—	—	15.0	11.3	305.7	22
	1955/56	242.4	233.9	17.0	17.5	29.9	27.8	32.5	30.1	11.6	9.3	—	—	17.6	18.3	351.0	33
Affiliated overseas areas [a]	1953/54	4.0	2.6	34.1	22.6	0.1	—	12.8	8.5	154.6	108.5	0.3	0.2	4.1	2.8	210.0	14
	1954/55	5.9	4.4	43.2	33.3	0.2	0.2	6.2	4.3	143.5	108.6	—	—	—	—	199.0	15
	1955/56	8.9	8.8	36.3	36.6	1.1	0.9	10.8	10.1	166.0	159.6	—	—	—	—	223.1	21
Other overseas countries	1953/54	..	..	—	—	1.2	0.2	—	—	—	—	—	—	—	—	1.2	
	1954/55	1.7	1.4	1.9	1.5	0.9	0.7	..	..	0.3	0.2	—	—	0.2	0.1	5.0	
	1955/56	0.2	0.2	0.2	0.2	0.1	0.1	—	—	—	—	—	—	—	—	0.5	
Western Europe	1953/54	28.4	19.1	34.3	24.1	104.7	60.0	34.0	20.2	16.2	9.7	12.7	8.2	29.5	20.0	259.8	16
	1954/55	33.4	25.4	46.3	34.5	89.7	59.2	14.3	9.8	6.2	4.1	14.2	10.0	31.0	21.9	235.1	16
	1955/56	13.7	13.8	55.0	54.7	100.2	88.6	11.8	10.5	8.7	7.2	12.1	11.5	37.3	35.4	238.8	22
Not allocated [b]	1953/54	2.5	1.7	—	—	—	—	—	—	—	—	—	—	—	—	2.5	
	1954/55	—	—	—	—	—	—	3.3	2.3	—	—	—	—	—	—	3.3	
	1955/56	—	—	—	—	0.4	0.1	—	—	—	—	—	—	—	—	0.4	
Total	1953/54	373.0	244.0	98.8	67.6	179.1	106.1	74.0	46.9	186.0	126.9	23.2	15.1	55.9	37.2	990.0	64
	1954/55	414.8	318.2	155.1	118.3	234.3	164.3	89.6	61.3	169.8	125.4	32.8	23.7	57.6	41.7	1154.0	85
	1955/56	411.9	400.0	180.9	184.2	248.4	231.9	99.0	89.9	188.8	178.4	24.2	22.7	58.3	57.0	1211.5	116

Sources : See Table IX. [a] Excluding the sterling area. [b] Includes very small quantities imported from eastern Europe.

TABLE XXI

Increase of income, investment and output in the Soviet Union and in eastern Europe, 1950 to 1955 and planned for 1955 to 1960

Percentages

	ALBANIA		CZECHOSLOVAKIA		EASTERN GERMANY	
	1950 to 1955 Actual	1955 to 1960 Plan	1950 to 1955 Actual	1955 to 1960 Plan	1950 to 1955 Actual	1955 to 1960 Plan
National income	70	53	51	48	62	45
Gross fixed investment	110	54 [a]	36	100 [a]	67	129 [a]
Value at plan prices of gross output of:						
Industry	179	91	70	50	90	55
of which:						
Producers' goods	156	102	86	57	94	60
Consumers' goods	197	84	51	40	84	40
Agriculture	37	50	17	30	32 [b]	22
Employment in industry	64	18	13	6.5	19	3
Output per man in industry	70	62	50	41	63	50
Real wages of workers	20	25	27	30	125 [c]	..
Real incomes of farmers	35 [d]	38	..	23	..	..

	HUNGARY		POLAND		RUMANIA		SOVIET UNION	
	1950 to 1955 Actual	1955 to 1960 Plan	1950 to 1955 Actual	1955 to 1960 Plan	1950 to 1955 Actual	1955 to 1960 Plan	1950 to 1955 Actual	1955 to 1960 Plan
National income	36	40	55	50	93	50	68	60
Gross fixed investment	15	70 [a]	64	47 [a]	126	85 [a]	65	75 [a]
Value at plan prices of gross output of:								
Industry	102	47–50	118	53	116 [e]	60–65	85	65
of which:								
Producers' goods	128	58–60	130	53	131	70–75	91	70
Consumers' goods	78	38–40	103	54	97	50–55	76	60
Agriculture	7 [f]	10 [g]	9	25	78 [e]	..	..	70
Employment in industry	53	9	37	13	..	10	29	10
Output per man in industry	32	36	59	35	..	45–50	44	50
Real wages of workers	6 [h]	25	14	30	28	30	39	30
Real incomes of farmers	21 [h]	25	..	30	..	..	50	40

Sources : See Appendix B.

Note. — Albania, Czechoslovakia, Rumania and the Soviet Union: Investment by the State only. Eastern Germany and Hungary: Total gross fixed investment (including private investment). Poland: Investment by the State and co-operative farms.

[a] Calculated on the assumption that investment is planned to increase at a constant rate sufficient to give the total planned for the 5-year period.

[b] A 44 per cent increase of gross output was reported earlier. Net output increased by 12 per cent.

[c] The increase is 75 per cent according to the earlier-used base-weighted type of index.

[d] Increase in money income. No information is available on price movements.

[e] Increase in net output: industry—93 per cent; agriculture—90 per cent.

[f] Average of 1951–1955 over 1950.

[g] Average of 1956–1960 over 1955.

[h] Based on 1949: between 1949 and 1950 consumption per head increased by 5 per cent.

TABLE XXII

Gross fixed investment by sectors in the Soviet Union and eastern Europe, 1951 to 1955, and plans for 1956 to 1960

Five-year totals in national currency units at plan prices

	ALBANIA		EASTERN GERMANY		HUNGARY	
	1951 to 1955 Actual	1956 to 1960 Plan	1951 to 1955 Actual	1956 to 1960 Plan	1951 to 1955 Actual	1956 to 1960 Plan
	(Billions of leks at 1 January 1955 prices)		*(Billions of DM at 1955 prices)*		*(Billions of forints at 1 January 1952 prices)*	
All industry	8.36	9.69	10.9 [a]	25.4 [a]	32.3	33–35
of which:						
Heavy industry	..	..	9.1 •	..	29.2	27.29
Light industry	..	..	1.8 •	..	3.1	4.6
Agriculture	2.74	4.01	2.3	6.5	11.1	14
Transport and communications	1.90	2.10	2.8 [b]	7.1 [b]	7.7	10
Trade	.. [c]	.. [c]	.. [d]	.. [d]	1.6	1.5
Housing	2.16	3.21	4.2	7.3	4.6	8.0
Schools, hospitals, public buildings, etc.			3.3	4.7	6.5	5.0
Other	2.09	2.93	6.0	3.6	5.1	4.5
TOTAL	17.25	21.94	29.5	54.6	68.9	76–78

	POLAND		RUMANIA		SOVIET UNION	
	1951 to 1955 Actual	1956 to 1960 Plan	1951 to 1955 Actual	1956 to 1960 Plan	1951 to 1955 Actual	1956 to 1960 Plan
	(Billions of zlotys at 1 July 1956 prices)		*(Billions of lei at 1955 prices)*		*(Billions of roubles at 1 July 1955 prices)*	
All industry	114	152	39.4	62.9	320	545
of which:						
Heavy industry	..	..	34.8	56.4	285	485
Light industry	..	..	4.6	6.5	35	60
Agriculture	18	38	6.5	13.4	115	205
Transport and communications	27	30	7.1	12.4	70	115
Trade	8	9	1.6	2.7	.. [c]	.. [c]
Housing	23	45	2.4	5.9	105	165
Schools, hospitals, public buildings, etc	17	30	6.0	7.5	55	80
Other	13	8		2.7	20	10
TOTAL	220	312 [e]	63	105–110	685	1 120

Sources: See Appendix B.

NOTE. — **Czechoslovakia** (Billions of kčs. at 1 July 1955 prices): 1951 to 1955 (actual) = 94.5; 1956 to 1960 (Plan) = 152.6.

Albania, Czechoslovakia and Rumania: Investment by the State only. **Eastern Germany and Hungary:** Total gross fixed investment (including private investment). **Poland and the Soviet Union:** Investment by the state and collective (co-operative) farms.

Building and construction industry is included in the industrial total with heavy industry.

[a] Private investment outside agriculture and housing was assumed to be private industrial investment and added to the total of state industrial investment.

[b] Communications included with schools, hospitals and other public investment.

[c] Trade included in other.

[d] Trade included with schools, hospitals, etc.

[e] Distribution percentages according to the plan directives of July 1956 applied to the total of investments according to plan directives of October 1956 (which are lower by 6 billion zlotys).

TABLE XXIII

Number of gainfully employed persons by sectors, and planned changes in employment in the Soviet Union, Poland, Czechoslovakia and Eastern Germany

	SOVIET UNION			POLAND			CZECHOSLOVAKIA			EASTERN GERMANY		
	Number of gainfully employed in 1955		Planned change from 1955 to 1960	Number of gainfully employed in 1955		Planned change from 1955 to 1960	Number of gainfully employed in 1955		Planned change from 1955 to 1960	Number of gainfully employed in 1955		Planned change from 1955 to 1960
	Total	Socialist sector [a]		Total	Socialist sector		Total	Socialist sector		Total	Socialist sector	
	(Thousands)		(Per cent)	(Thousands)		(Per cent)	(Thousands)		(Per cent)	(Thousands)		(Per cent)
Industry	20 300	18 700 [b]	10	2 690	2 690	35	1 907	1 907	6.5	2 770	2 270	10
Construction	5 800	4 200 [b]	14	700	700	10	425	425	14	481	229	3
Agriculture	39 100	35 500	−14	7 210	820 [c]	.. [c]	1 944	617	.. [h]	1 775	499	..
Transport and communications	5 600	5 600	10 [d]	630 *	560	23	279	279	.. [h]	566	529	20 [e]
Trade	4 500	4 000	40 [f]	750 *	650		395	395	.. [h]	904	585	17 [g]
Handicrafts	2 000	—	—	130	—	−4	142	94	..	590	—	—
Other sectors	13 600	12 700	..	1 300	1 290		981	981	.. [h]	1 139	874	..
Total	90 900	80 700	..	13 410	6 710	..	6 073	4 698	..	8 232	4 986	..
Of which: wage and salary earners	48 400	48 400	14	6 500	6 500	18	4 296	4 290	8	6 411	4 800	..

Sources: See Appendix B.

NOTE. — Yearly averages for the Soviet Union and Poland; end-of-year figures for Czechoslovakia; in eastern Germany, averages for industry, construction and transport, end-of-year figures for all other sectors and the total.

The figures for agriculture include those employed in machine and tractor stations and in forestry.

[a] State sector and farm and trade co-operatives only.

[b] Excluding members and employees of co-operatives.

[c] Employment on state farms and machine tractor stations is to increase by 18 per cent (from 610,000 to 720,000).

[d] Estimated from output and output per man of railways and waterways which have a share of 95.1 per cent in total goods transport performance.

[e] Estimated from output and output per man of railways, inland waterways and road haulage enterprises which have a share of 93 per cent in total goods transport performance.

[f] Change in the number of posts.

[g] Estimated assuming a uniform rise in output per man in State-owned and other trade enterprises.

[h] A two per cent change is planned in the total number of workers and employees in the sectors outside industry and construction.

TABLE XXIV

Plant production in 1955 and plans for 1960 in the Soviet Union and eastern Europe

	AREA	YIELD	PRODUCTION		
	1955 Actual			1956 Actual	1960 Plan
	(Millions of ha.)	*(Quintals per ha.)*	*(Millions of tons)*		
Soviet Union					
All grain	126.4	8.5 *	108 *	130 *	180
Sugar beet	1.76	173	30.5	32.2	47[a]
Sunflower seed	4.24	137 *	5.8 *	6.2	8.9 *
Cotton	2.20	17.7	3.9	4.4	6.1
Poland					
All grain	8.84[b]	14.3[b]	12.67[b]	12.1[b]	14.2[b]
of which :					
Bread grain	6.38	14.3	9.14	8.7	..
Coarse grain	2.46[b]	14.3[b]	3.53[b]	3.4[b]	..
Potatoes	2.70	100	27.0	38.0	38.0
Sugar beet	0.39	186	7.3	6.4	9.2
Rumania					
All grain	7.3	16.3	11.9	..	15.0[c]
Potatoes	..	..	2.6	..	3.5
Sugar beet	..	..	2.0	..	3.0
Sunflower seed	..	..	0.41	..	0.35-0.40
Textile plants	..	..	..	..	0.375[d]
Vegetables	..	..	2.0	..	2.5
Eastern Germany					
All grain	2.48	26.4	6.55	5.87	..
Potatoes	0.84	144	12.1	16.0	18.6
Sugar beet	0.21	286	6.15	5.2 *	8.3
Czechoslovakia					
All grain	2.56	19.9	5.09	5.43	6.88
of which :					
Bread grain	1.23	19.8	2.43	2.58	2.97
Coarse grain	1.33	20.0	2.66	2.85	3.91
Potatoes	0.53	150	7.93	8.91	10.45
Sugar beet	0.19	324	6.15	4.50	6.84
Oil seed	..	..	0.067	..	0.08
Hungary					
All grain	3.62	18.1	6.55	4.88	8.00
of which :					
Bread grain	1.81	14.7	2.67	2.15	2.95
Coarse grain	1.81	21.4	3.88	2.73	5.05
Potatoes	0.23	107	2.47	2.2	2.87
Sugar beet	0.11	198	2.24	1.8	3.3
Albania					
All grain	0.31	11.9	0.36	..[g]	0.52
of which :					
Bread grain	..	10.3[e]	0.30	..	0.45
Coarse grain	..	9.3[f]	0.06	..	0.07
Sugar beet	0.01	..	0.11	..	0.13
Cotton	0.03	..	0.02	..[g]	0.03

Sources : See Appendix B.

NOTE. — The figures refer to barn yield for the Soviet Union, Czechoslovakia, Hungary, Poland and Albania, and to biological yield for eastern Germany and Rumania.

[a] Target increased to 50 million tons by decree of 7 June 1956.

[b] Excluding maize, the area of which was 0.09 million hectares in 1955.

[c] Of which: bread grain 5.5 million tons, coarse grain 9.5 million tons.

[d] Of which: 75,000 tons flax fibre, 300,000 tons hemp fibre.

[e] Wheat only; rye yield was 9.1 quintals.

[f] Barley only; oat yield was 8.6 and maize 14.3 quintals.

[g] Poor harvest was reported.

TABLE XXV

Deliveries and stock of farm machinery in the Soviet Union and eastern Europe

Thousands

	DELIVERIES		STOCKS		
			End 1955 Actual		End-1960 Plan
	1956 to 1960 Plan	1956 Actual	Total	*of which :* machine and tractor stations	Total
Soviet Union :					
Tractors	1 650 [a]	248	1 439 [b]	1 109 [b]	..
Grain combines	560	56	338 [c]	280 [c]	..
Windrowers	180	..	3.4 [c]	2.5 [c]	..
Combine pick-up feeders	400	194	..	..	..
Maize and silage combines	250	41	..	..	..
Eastern Germany :					
Tractors	..	..	85.8 [d]	75.1	105.1 [e]
Seed drills	..	..	7.28 [d]	6.55	12.76 [e]
Potato seeders	..	..	4.20 [d]	3.70	8.96 [e]
Combine harvesters	..	..	2.26 [d]	2.01	7.25 [e]
Potato combines	..	..	0.23 [d]	0.17	7.31 [e]
Beet combines	..	..	0.30 [d]	0.26	4.18 [e]
Czechoslovakia :					
Tractors	36.3	..	33.75 [f]	25.0	..
Tractor seed drills	17.5	..	48.08 [f]	..	..
Grain combines	8.3	..	3.34 [f]	2.53	..
Reaper binders	5.0	..	27.10 [f]	..	..
Automatic threshers	7.6	..	3.30 [f]	..	..
Maize and silage combines	9.2	..	..	..	..
Potato combines	7.1	..	..	..	..
Beet combines	3.9	..	1.25 [f]	0.93	..
Poland :					
Tractors	70.6	9.0	58.6	23.8	117.2
Seed drills	82.5	..	..	..	..
Combine harvesters	12.0	..	1.8	—	17.6
Reaper binders	31.1	..	32.8 [g]	22.3	..
Hungary :					
Tractors	19.0	..	..	13.5	..
Fertiliser spreaders	4.5	..	..	..	..
Grain combines	3.8	..	2.35 [g]	1.47 [g]	..
Reaper binders	1.4	..	3.72 [g]	2.44 [g]	..
Maize and silage combines	6.0	..	..	..	..
Sugar beet harvesters	1.5	..	..	..	..
Rumania :					
Tractors	..	..	30.0	15.9 [h]	37.0

Sources : See Appendix B.

NOTE. — Tractors are given in 15 h.p. units.

[a] Of which: 680,000 universal (row crop) tractors (in absolute numbers).

[b] 1 July 1955; total deliveries in 1955 were 218,000.

[c] 1 January 1955; total deliveries of grain combines were 46,000 in 1955.

[d] State farms and machine-tractor stations only.

[e] Machine and tractor stations only.

[f] State farms, advanced type co-operatives (classes III and IV) and machine-tractor stations only.

[g] June 1956.

[h] 1954.

TABLE XXVI

Output of livestock products in eastern Europe, 1955, and plans for 1960

Commodity	Unit	CZECHOSLOVAKIA		EASTERN GERMANY		HUNGARY		POLAND		RUMANIA		SOVIET UNION	
		1955 Actual	1960 Plan	1955 Actual	1960 Plan	1955 Actual	1960 Plan	1955 Actual	1960 Plan	1955 Actual	1960 Plan	1955 Actual	1960 Plan
Meat[a]	Thousand tons	768	1 044	1 169[b]	1 390[b]	850	1 100	1 669	2 114	800	1 300	..	..
Lard		44.1	57.5	35.9	..	60.3	79	39.5	..	..	..	..	..
Butter		43.2	69.7	122.7	163.0	11.38	18.30	61.3	93.7	..	18.3	..	..
Milk	Billion litres	3.42	4.98	5.53[c]	7.74[c]	1.5	2.0	9.62	12.48	1.85	2.50	44.0	82.0
Eggs	Billion	2.08[d]	2.52	2.04	..	1.4	1.8	4.16	..	..	..	..	..
Wool	Thousand tons	2.9	4.0	..	..	5.8	8.75	9.84	15.20	..	34.0	252	459

Sources : Plan documents, plan fulfilment reports, direct communications from governments and statistical yearbooks.

[a] Live weight.

[b] Including poultry.

[c] Including goat milk (output of cow milk: 5.08 billion litres in 1955).

[d] 1.73 according to another source.

See page A-42 for Table XXVII.

and the Soviet Union in 1955, and plan for 1960

	ALBANIA				CZECHOSLOVAKIA				EASTERN GERMANY			
	1955			Planned percentage increase from 1955 to 1960	1955			Planned percentage increase from 1955 to 1960	1955			Planned percentage increase from 1955 to 1960
	Physical quantities *(Millions of tons)*[a]	Hard-coal equivalent *(Tons per unit)*[b]	Hard-coal equivalent Total *(Millions of tons)*		Physical quantities *(Millions of tons)*[a]	Hard-coal equivalent *(Tons per unit)*[b]	Hard-coal equivalent Total *(Millions of tons)*		Physical quantities *(Millions of tons)*[a]	Hard-coal equivalent *(Tons per unit)*[b]	Hard-coal equivalent Total *(Millions of tons)*	
Total coal	0.2	1.0	0.2	54	62.8	0.68	42.5	38	203.3	0.29	58.9	29
of which:												
Hard coal	0.2	1.0	0.2	54	22.1	1.0	22.1	26	2.7	1.0	2.7	7
Brown coal	—	..	—	—	40.8	0.5	20.4	50	200.6	0.28	56.2	30
Crude petroleum	0.2	1.4	0.3	219	0.3	1.3	0.4	40	—	—	—	—
Natural gas	—	..	—	..	0.1[c]	1.2[d] *	0.1	700	—	—	—	..
Fuel wood	..	..	..	..	3.1[e]	0.25[f] *	0.8	..	1.0[e]	0.25[f] *	0.3	..
of which:												
Coniferous	..	..	..	..	..	..	..	..	0.8	0.21	0.2	..
Broad-leaved	..	..	..	..	..	..	..	..	0.2	0.29	0.1	..
Hydro-electricity	—	..	..	82	1.9[g]	0.4[h]	0.8	86[i]	0.8[g]	0.4[h]	0.3	..
TOTAL	..	..	0.5	153	..	..	44.6	40	..	..	59.5	*ca.* 30

	HUNGARY				POLAND				RUMANIA				SOVIET UNION			
	1955			Planned percentage increase from 1955 to 1960	1955			Planned percentage increase from 1955 to 1960	1955			Planned percentage increase from 1955 to 1960	1955			Planned percentage increase from 1955 to 1960
	Physical quantities *(Millions of tons)*[a]	Hard-coal equivalent *(Tons per unit)*[b]	Hard-coal equivalent Total *(Millions of tons)*		Physical quantities *(Millions of tons)*[a]	Hard-coal equivalent *(Tons per unit)*[b]	Hard-coal equivalent Total *(Millions of tons)*		Physical quantities *(Millions of tons)*[a]	Hard-coal equivalent *(Tons per unit)*[b]	Hard-coal equivalent Total *(Millions of tons)*		Physical quantities *(Millions of tons)*[a]	Hard-coal equivalent *(Tons per unit)*[b]	Hard-coal equivalent Total *(Millions of tons)*	
Total coal	22.3	0.48	10.7	32	100.5	0.96	96.9	18	..	..	3.2	80–90	391.0	0.82	322.1	52
of which:																
Hard coal	2.7	..	..	..	94.5	1.0	94.5	16	0.2	1.0	0.2	..	276.1	1.0	276.1	..
Brown coal	19.6	..	..	..	6.0	0.4	2.4	95	5.9	0.5	3.0	..	114.9	0.4	46.0	..
Air-dried peat	..	..	..	..	—	—	—	..	—	—	—	—	51.0	0.4	20.4	73
Crude petroleum	1.6	1.3	2.1	19	0.2	1.3	0.3	..	10.6	1.3	13.8	28	70.8	1.3	92.0	91
Shale oil	..	..	..	..	—	—	—	..	—	—	—	..	10.8	0.16	1.7	67
Natural gas	0.5[c]	1.2[d]	0.6	28	0.4[c]	1.2[d]	0.6	..	5.7[c]	1.3[d]	7.4	115	9.0[c]	1.2[d]	10.8	288
Fuel wood	2.0[e]	0.25[f] *	0.5	..	1.4[e]	0.24[f]	0.3	..	6.0[e]	0.25[f] *	1.5 *	..	224.0[e]	0.24[f]	53.6	..
of which:																
Coniferous	..	..	..	..	1.0	0.21	0.2	..	..	..	..	..	145.5[e]	0.21[f]	31.1	..
Broad-leaved	..	..	..	..	0.4	0.29	0.1	..	..	..	..	..	78.6[e]	0.29[f]	22.5	..
Hydro-electricity	..	..	..	..	0.7[g]	0.4[h]	0.3	..	0.2[g]	0.4[h]	0.1	..	23.1[g]	0.4[h]	9.2	155
TOTAL	..	..	13.9	30	..	..	98.3	18	..	..	26.0	50	..	..	509.8	62

Sources: See Appendix B.

[a] Unless otherwise indicated.

[b] Per ton if not otherwise indicated.

[c] Billion cubic metres.

[d] Per thousand cubic metres.

[e] Million cubic metres.

[f] Per cubic metre.

[g] Million MWh.

[h] Per MWh.

[i] Increase in installed capacity.

Table XXVII

Output of principal engineering products in the Soviet Union and eastern Europe

Product	Country	Unit	Quantity		Percentage change in five years	
			1955 Actual	1960 Plan	1950 to 1955 Actual	1955 to 1960 Plan
Power plant equipment						
Steam turbines	Soviet Union	MW	4 069	10 500	71	158
	Czechoslovakia		1 000 [a]	..	..	..
	Eastern Germany		800 *	..	..	..
	Hungary		240	370	..	54
	Poland		19	228	..	1 100
Hydro-turbines	Soviet Union		1 492	2 600	374	74
	Hungary	Million forints	10	50	..	400
Generators for steam, gas and hydro-turbines	Soviet Union	MW	4 526	11 000	384	143
Electric motors	Eastern Germany[b]		2 155	4 050	..	88
	Czechoslovakia		1 283	2 400	..	87
	Rumania		..	..	..	150-170
Generators and electric motors	Poland		1 230	2 905	..	136
Transformers	Eastern Germany[c]	MVA	3 045	5 600	..	84
	Poland		2 184	..	..	..
	Rumania		..	..		*ca.* 180
Diesel motors	Czechoslovakia	Thousand h.p.	797	1 260	..	58
	Hungary		83	567	..	580
Machine tools and other industrial equipment						
Metal-cutting machine tools	Soviet Union	Thousand	105 [d]	200	67	90
	Czechoslovakia		15.7	27.3	..	74
	Poland [e]		11.1	18.5	241 [f]	67
	Hungary		6.0	11.1	52 [g]	83
	Eastern Germany	Thousand tons	29	67	..	130
	Poland [e]		22.2	40.5	128 [f]	82
	Rumania		..	..	..	70-75 [f]
Non-cutting machine tools	Soviet Union	Thousand	13.9 [d]	25.8	77	85
	Czechoslovakia [e]		5.0	6.8	..	37
	Poland [e]		1.7	2.8		62
	Eastern Germany	Thousand tons	39	86	..	120
	Czechoslovakia [e]		16.5	34.8	..	111
	Poland [e]		4.9	17.8	..	263
	Hungary	Million forints	28	80	..	183
Automotion equipment	Soviet Union		..	..	..	300
	Czechoslovakia	Thousand	0.28	1.35	..	380

Product	Country	Unit	Quantity		Percentage change in five years	
			1955 Actual	1960 Plan	1950 to 1955 Actual	1955 to 1960 Plan
Transport equipment *(continued)*						
Goods wagons	Soviet Union	Thousand	34.4	52.0	32	51
	Czechoslovakia		5.6	..	..	..
	Eastern Germany		2.4	9.0	..	270
	Rumania		..	2.2 [l]	..	..
Passenger coaches	Soviet Union	Thousand	1.8	2.8	94	58
	Hungary		0.3	0.8	162	172
	Czechoslovakia		0.1	..	..	..
Ships	Eastern Germany	Thousand GRT	65 [m]	250	..	..
	Poland	Thousand DWT	103	200	498	94
Motor ships	Hungary	Units	24	40 [l]	33	..
Motor trucks	Soviet Union	Thousand	329.0	434.0	12	32
	Eastern Germany		14	..	..	..
	Czechoslovakia		10.5	15.8	..	50
	Poland		12.5	15.2	..	21
	Rumania		1.8 *	9.6 [l]	..	..
	Hungary		3.8	6.8	47	79
Motor-cars	Soviet Union		107.8	200	67	86
	Eastern Germany		22	..	..	..
	Czechoslovakia		12.5	55.0	..	340
Motor buses	Soviet Union		8.5	16.0	120	88
	Hungary		1.4	3.4	208	145
	Czechoslovakia		1.1	..	..	..
	Rumania		..	0.8 [l]	..	..
Agricultural machinery						
Tractors	Soviet Union		163.4	322	50	97
	Czechoslovakia		12.6	28.3	..	125
	Poland		8.0	10.6	101	32
	Eastern Germany		6.5 [n]	..	..	..
	Hungary		4.7 [o]	9.9 [o]	13	112
	Rumania		..	6.0	..	..
Tractor motors	Rumania		..	2.0	..	..
Grain combines	Soviet Union		48	140	4	192
	Hungary		1.5	2.5	.. [p]	63
	Eastern Germany		1.05	..	..	..
Maize combines	Hungary		..	3.4 [l]	..	..
Potato combines	Eastern Germany		8.06	..	..	..
Sugar-beet combines	Czechoslovakia		0.7	1.9	..	170
Windrowers	Soviet Union		2.4	50	.. [p]	2 000

Metallurgical equipment . . .	Soviet Union	Thousand tons	172	280	55	63
	Czechoslovakia		15 h	41 h	..	165 h
	Eastern Germany		24h	60 h	41 h	150 h
Chemical equipment	Soviet Union		113	208	163	84
	Czechoslovakia		29.1	75	..	158
	Hungary		..	..	..	150
Oil industry equipment . . .	Soviet Union		48 i	120	1	148
	Rumania		..	..	..	100
Cement-making plant	Eastern Germany		41.8	167	..	300
	Czechoslovakia		7.4	22	..	197
Building and civil engineering equipment	Poland		29.7	60-63	..	102-112
Earth-moving equipment . . .	Eastern Germany		46	73	..	57
Textile machinery	Czechoslovakia	Million kčs.	56	270	..	380
Food-processing machinery . .	Czechoslovakia		131	380	..	190
Instruments	Soviet Union	Million roubles	2 000	7 000	..	252
	Czechoslovakia	Million kčs.	664 j	1 327 j	..	100 j
Spare parts	Hungary		..	..	..	150
Spare parts for light industry .	Rumania		..	..	..	300
Transport equipment						
Electric locomotives	Soviet Union	Units	194	550	90	184
	Czechoslovakia		33	270	..	720
	Eastern Germany		212	130 k	199	..
	Poland		7	50	..	614
	Hungary		..	15	..	..
Diesel locomotives	Soviet Union		134	1 630	7	1 116
	Czechoslovakia		218	870	..	300
	Hungary		..	380	..	..
	Eastern Germany		..	130 k	..	..
Motor trains	Hungary		..	18 l		
Steam locomotives	Soviet Union		654	—	– 34	– 100
	Hungary		140	..	– 34	..
	Eastern Germany		109	..	– 66	..
	Poland		91	140	..	54
	Rumania		..	100 l	..	..

Gross value of total output . .	Soviet Union	Million roubles	5 400	9 500	100	76
	Poland	Million zlotys	1 120	4 145	292	269
	Czechoslovakia	Million kčs.	545	970	..	78
	Hungary		..	..	..	110
Metal-made consumer goods						
Domestic sewing machines . .	Soviet Union	Thousand	1 611	3 780	221	135
	Czechoslovakia		78.1	110	..	41
	Eastern Germany		215	..	..	..
	Hungary		46.0	68.5	..	49
Domestic washing machines .	Soviet Union		87	528	2 800	508
	Czechoslovakia		206	280	..	36
Domestic refrigerators	Soviet Union		151.4	635	1 162	319
	Czechoslovakia		30.6	130	..	330
	Eastern Germany		17	110	..	550
Vacuum cleaners	Czechoslovaki		122	220	..	80
Radio sets	Soviet Union		3 530	7 700 q	..	118 q
	Eastern Germany		763	..	..	..
	Poland		460	860	298	87
	Hungary		310	455	280	47
	Czechoslovakia		102	..	..	..
Television sets	Soviet Union		470	2 500	1 467	432
	Czechoslovakia		17.3	220	..	1 175
	Eastern Germany		39	350	..	800
	Poland		..	100	..	..
	Hungary		..	22 l	..	..
Cameras	Eastern Germany		917	..	543	..
	Czechoslovakia		146	245	..	67
Motor-cycles	Soviet Union		245	395	99	62
	Czechoslovakia		102 r	325 r	..	220 r
	Eastern Germany		88 r	525 r	..	500 r
	Poland		30	190 s	324	530 s
	Hungary		16.6	54	71	226
Bicycles	Soviet Union		2 884	4 230	344	47
	Eastern Germany		724	..	..	..
	Czechoslovakia		294	..	..	..
	Poland		166	600 t	351	260 t
	Hungary		217	410	38	89

Sources: Plan documents, plan fulfilment reports, statistical yearbooks and bulletins.

NOTE. — Percentage change refers to increase unless a minus sign indicates a decrease.

[a] Including hydro-turbines.

[b] Motors exceeding 0.25 kW only.

[c] High-efficiency transformers only.

[d] A small number of tools were also produced in enterprises for which no plan target for 1960 has been announced, viz. in 1955, 13,000 metal-cutting and 2,000 other machine tools.

[e] The two series by number and by weight have an identical coverage.

[f] All metal-working machine tools.

[g] Refers to turret lathes, drills, milling tools and planers.

[h] Rolling-mill equipment only.

[i] 86 in 1954.

[j] Control, optical, laboratory and electric-measuring instruments, office machinery and medical apparatus.

[k] Main-line locomotives only.

[l] Average for 1956–60.

[m] Average for 1951–55.

[n] Wheeled tractors only.

[o] Of which : diesel tractors : 0.1 in 1955 and 5.7 in 1960.

[p] None produced in 1950.

[q] This figure is understood to exclude radiograms.

[r] Including scooters and power-assisted bicycles.

[s] Including scooters.

[t] Excluding children's bicycles.

TABLE XXIX

Production in eastern Europe in 1955-1956 and planned for 1957 or 1960

	Unit	BULGARIA			CZECHOSLOVAKIA			EASTERN GERMANY			HUNGARY			POLAND			RUMANIA		
		1955 Actual	1956 Actual	1957 Plan	1955 Actual	1956 Actual	1960 Plan	1955 Actual	1956 Actual	1960 Plan	1955 Actual	1956 Actual	1960 Plan	1955 Actual	1956 Actual	1960 Plan	1955 Actual	1956 Actual	1960 Plan
Mining																			
Hard coal	Million tons	10.0	10.5	11.0	22.1	23.4	27.9	2.7	2.7	2.9	2.69	20.6	29.4	94.5	95.1	110.0	6.1	6.5	11.6
Brown coal					40.8	46.3	61.4	200.6	205.9	260.0	19.62			6.0	6.2	11.7			
Coke		..	..	..	7.0	7.3	8.6	..	..	..	0.03	..	0.55	10.0	10.5	12.5	..		
Crude petroleum		0.15	0.25	0.28	0.3	..	0.4	—	—	—	1.60	1.0*	1.90	0.18	..	0.25	10.6	10.9	13.6
Iron ore		0.11	0.24	0.27	2.0	2.1	3.6	0.47 *a*	0.46 *a*	..	0.35	..	0.77	1.86	1.64	3.70	0.6	0.7	1.2
Manufactured gas	Billion m³	..	..	..	3.40	..	..	2.46	..	..	..	..	..	0.99	..	..	3.9 *b*	3.9 *b*	10.1 *b*
Electric power	Million Mwh	2.07	2.40	2.71	15.0	16.6	25.3	28.7	31.2	44.0	5.43	5.0*	8.35	17.8	19.5	29.85	4.3	4.8	8.0
Basic material																			
Pig iron	Million tons	..	..	0.04	2.98	3.28	4.78	1.52	1.57	2.25	0.86	0.6*	1.41	3.11	3.50	5.10	0.58	0.59	1.16
Crude steel		0.08	0.13	0.18	4.47	4.88	6.54	2.51	2.74	3.5	1.63	1.1*	2.24	4.43	5.01	7.20	0.77	0.78	1.70
Rolled products		0.07	0.10	0.12	2.99	3.3	4.38	1.91	2.04	2.6	0.88	0.6*	1.40	3.04	3.31	4.90	0.57	0.60	1.10
Aluminium	Thousand tons	—	—	—	24.4	21.2	56.0	27.0	..	65.0	37	34*	47.5	20.4	..	46.0	..	..	
Chemical industry																			
Sulphuric acid	Thousand tons	19.3	29.0	..	383	422	560	483	499	725	124	..	200	450	481.5	768	92	..	210
Caustic soda		0.24	11	100	..	..	..	257	275	350	11.7	..	40.5	102	..	660	..	..	..
Calcined soda		74	86		..	..	..	459	501	730	..	..	..	211	..		80.0	79.0	320.0
Nitrogenous fertilizers		96 *c*	105 *c*	108 *c*	60.6 *d*	64.0 *d*	141.0 *d*	293.4 *d*	299.7 *d*	335.0 *d*	12.8 *d*	25 *d**	150.0 *de*	154.1 *d*	175.2 *d*	580 *d e*	58 *f*	68 *f*	..
Phosphorus fertilizers					98.3 *e*	107.0 *e*	156.5 *e*	84.6 *e*	111.7 *e*	200.0 *e*	28.5 *e*	..		131.9 *e*	123.5 *e*				..
Rayon					48.5	49.0	66.6	22.3	..	..	..	..	..	15.4	16.3	..			
Building materials																			
Cement	Million tons	0.81	0.86	0.85	2.89	3.15	4.52	2.97	3.44	5.20	1.18	1.0*	1.86	3.81	4.04	6.8	2.0	2.2	3.6
Lime		..	..	..	1.54	1.68	2.26	2.45	..	..	0.51	..	..	1.34	1.27	..	..	..	..
Bricks	Billion	0.44	0.55	..	1.48	1.83	2.72	1.96	1.95	..	1.20	1.1*	1.95	2.56	2.59	3.99	..	..	..
Tiles	Million	..	..	..	172.3	198.1	361.8	186	321	..	149	..	..	127.3	114.9	..	..	..	..
Plate glass	Million m³	3.17	3.40	..	21.0	22.9	26.5	14.3	..	..	..	..	..	16.1	..	..	..	..	..
Light industries																			
Cotton fabrics	Million metres	132	142	148	355.8	349.8	439.0	200.5 *g*	211 *g*	395 *g*	234 *g*	190 *g**	247 *g*	564.9	556.6	681.0	243 *g*	..	300 *g*
Woolen fabrics		10.6	13.0	13.0	39.5	36.8	47.2	32.3 *g*	..	58.8 *g*	26 *g*	21 *g**	34 *g*	75.7	76.1	86.8	31 *g*	31 *g*	..
Silk fabrics		3.8	5.3	6.0	50.8	49.8	60.6	52.9 *g h*	..	..	20.0 *g*	17 *g**	25.5 *g*	81.3	85.5	107.4	20.6 *g*	..	39.1 *g*
Leather footwear	Million pairs	3.55 *i*	3.91 *i*	..	22.6	21.8	..	17.6	..	22.0	12.4	11*	16.2 *i*	24.6	26.9	81.3 *i*	17.7 *i*	..	25.7 *i*
Paper	Thousand tons	..	..	..	345.5	360.0	437.1	417.8	..	..	105.0	..	164.0	375.7	397.1	530.0	..	..	..
Soap		10	17	..	40.3	..	55.5	40.7	..	..	24.4	20*	..	54.7	..	71.0	..	..	..
Food industries																			
Refined sugar	Thousand tons	63	107	113	659	593	991.8	641	..	..	248	242 *m*	410	980.5	776.0	1350.0	135	157	300
Meat		94	107	104	344.9	385.0	457.5	496.4	527.2	..	149	..	217	628.8	768.7	930.0	440 *j*	..	1300 *j*
Lard		..	..	..	44.1	52.0	57.5	78.2 *k*	85.0 *k*	..	60.3	..	79	39.5	..	..	150 *k*	..	..
Edible oil		61.1	67.0	..	91.1	100.0	116.5	167.5	..	..	21.5	..	35	52.6	55.3	..	48	52	90
Bread		588 *l*	711 *l*	..	999	..	..	1368.1 *l*	..	..	1377 *l*	..	..	..	..	..	980	..	..
Beer	Million hectol.	0.54	0.58	..	10.5	..	..	11.8	..	..	2.4	2.0*	..	5.2	..	..	..	..	..
Cigarettes	Billion	..	..	..	16.1	..	..	17.8	..	..	13.5	11.0*	..	37.5	41.3	50.0	..	..	..
Milk	Million litres	..	..	..	860.7	857.0	1024.0	..	..	..	215.1	..	..	720.0	747.3	902.0	..	..	..
Butter	Thousand tons	3.62	4.66	..	43.2	49.0	69.7	122.7	..	..	11.4	..	18.3	61.3	62.3	93.7	..	..	..

Sources: Plans, plan fulfilment reports, as well as statistical yearbooks and quarterly statistical bulletins.

NOTE — For products of the engineering industry, see Appendix Table XXVIII.

[a] Fe content.
[b] Methane gas.
[c] Azota fertilizers.
[d] t/N.
[e] t/P_2O_5.
[f] Commercial weight.
[g] Million square metres.
[h] Includes also half-silk fabrics.
[i] All footwear.
[j] Live weight.
[k] Animal fats (crude).

Appendix B

NOTES ON SOURCES AND METHODS

(For page references to the notes on particular tables, see the Table of Contents, pp. vii – xii.)

I. GENERAL

As in previous years, the statistics given should be regarded in the first place as basic documentation for the economic analysis made in the SURVEY. They are therefore somewhat different in nature from statistics normally published in statistical yearbooks and other publications of a purely statistical nature. First, when no official figures are available, it is often preferable to have an estimate rather than no figure at all. Consequently, estimated figures which have a wider margin of error than is usually allowed in statistical publications are sometimes shown in the various tables. In the second place, the available national statistics have, for the sake of comparability as between countries, often been adjusted to more uniform definitions. For this reason, the figures shown differ in many instances from those given in national publications, or in other publications of the United Nations and its specialized agencies. Finally, the methods of compilation have been chosen with a view to the special use for which the data are intended. This does not necessarily mean that for other purposes other methods might not have been preferable.

Where a table gives totals for a number of countries, these totals always refer to the same group of countries for each period shown. In cases where figures for a given country are not available for one or more periods, estimates of these missing figures are included in the totals. Except where otherwise stated, area totals include estimates for those countries for which no data are available, or assume that the series for the missing country moved in proportion to the average for the other countries.

Slight discrepancies between constituent items and the totals shown in the tables are due to rounding.

The tables include information received up to 15 February 1957. In general, the more recent figures are to be regarded as provisional, and subject to revision.

Methods of Reference to Sources

Wherever the sources for a table have been few and the methods used self-evident, the necessary references have been given under the table. All sources referred to in this Appendix are listed systematically at the end of the SURVEY and are given a number, by which they are referred to in the succeeding notes.

Information on sources is given in the following order: first the department, institution, or other authority responsible for the publication (or in the case of books, the author);[1] where the site of the issuing authority is not the capital city, the place of issue is indicated, this being followed by the title of the publication; the place of publication is then given, if different from the place of issue, and is followed by the mention of the publishing house (where different from the issuing authority) and (for non-periodical literature) the date of publication. Finally, for periodicals an indication is given of the frequency of publication. Such details are omitted when they are already apparent from the wording of the title (e.g., *Monthly Digest of Statistics* for periodicity, and *Maandschrift van het Centraal Bureau voor de Statistiek* for both periodicity and issuing authority). The publisher is not normally mentioned for official publications. In addition to the foregoing exceptions, there are a few cases where full bibliographical detail is not known.

If no particular issue of a periodical is indicated, it is to be understood that various issues of it were used as a source for the statistics. If, for any country, the title of a publication is given in a language other than the national language of that country, it is to be understood that a translation of the publication exists in the language indicated or that the edition is largely bilingual.

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[1] For newspapers and ordinary commercial periodicals, this information is not given.

II. CURRENT DEVELOPMENTS AND PROBLEMS IN EASTERN EUROPE AND THE SOVIET UNION (Chapter I, Tables 1, 8, 18 and 25)

Crop estimates for the Soviet Union (Table 1)

Index numbers for 1950 to 1955 were given in **25.23** (p. 101) and for 1956 in **25.1**, 31 January 1957 and (except for flax fibre and silkworm cocoons) have been applied to the quantities for 1955 shown in Table XXIV. For flax the 1955 figure in the text table on p. 192 of **29.3** was used and 1956 added from the collective farm crop increase between 1953 and 1956 given in **25.6**, 14 December 1956 (since virtually none is grown on the state farms). Silkworm cocoon deliveries in 1951 were 28 per cent over 1940 (**25.2**, 12 October 1952), which was given in **25.22** (p. 51). 1955 and 1956 deliveries were given in a Tass despatch of 23 November 1956.

Constituent changes in personal income and outlay in the Soviet Union (Table 8)

(1) : from numbers employed and estimates of average wages; *(2) :* from the same estimates and the real wage index quoted in the 1956 plan fulfilment report (public health workers' wages are from the 1956 budget reports); *(3) :* **25.1**, 9 September 1956; *(4) :* A. Zverev, **25.1**, 6 February 1957; *(5) :* **25.19**, 11-16 July 1956 (pp. 223-234), as revised by M. Pervukhin, **25.1**, 6 February 1957, and allocated between 1956 and 1957, taking into account the entry into force of the scheme in October 1956; *(6) :* 1956 plan fulfilment report, less an estimate of the increment earmarked for investment; *(7) :* A. Zverev, **25.1**, 6 February 1957.

(8)–(10) : 1956 plan results, **25.27** (p. 19), and M. Pervukhin, **25.1**, 6 February 1957; *(11)–(14) :* A. Zverev, **25.1**, 6 February 1957; *(15) :* part of the increment in 1956 education expenditure and 1957 public health expenditure. A check was obtained from the 1956 plan fulfilment report, which stated that items *(3)*, *(5)*, parts of *(6)* and *(15)*, and wage compensation for shortened hours (4 billion roubles, according to **25.1**, 6 February 1957) aggregated 35 billion roubles.

Changes in wages, cost of living and retail trade turnover in eastern Europe (Table 18)

Apart from plan and plan fulfilment reports, the following sources have been used:

Bulgaria : **4.1**, 30 April and 28 December 1956.

Czechoslovakia : **5.1**, 1 April 1956 and 12 February 1957 and **5.7**, No. 2, 1956 (p. 15).

Eastern Germany : **9.5**, No. 7, 1956, and **9.10**.

Hungary : **12.5** and **12.7**, 26 January 1957.

Poland : **18.8**, **18.9** and **18.1**, 10 January 1957.

Soviet Union : **25.27**.

Farm size in the Soviet Union in 1955 (Table 25)

All page references are to **25.23**.

Collective farms : The percentage distribution of farms by sown area: p. 132; absolute figures on sown area and farm numbers: pp. 128 and 130 respectively.

State farms : Average sizes by type of farm: p. 136; farm numbers of each type: p. 133.

Subsidiary farms of state enterprises : The number and aggregate size were shown by difference on p. 135.

Individual peasant holdings : Area: p. 108; number: p. 99.

Plots of collective farmers : Area: p. 108; number: p. 128.

Allotments of workers and employees : Area: p. 108; number: **25.3**, 13 February 1953. (From p. 108 of **25.23** it can be seen that the aggregate area changed very little between 1950 and 1955.)

III. PLANNING IN EASTERN EUROPE AND THE SOVIET UNION
(Chapter II, Tables 1–3, 7, 10–11, 17, 19, XXI–XXV and XXVIII)

National income, investment and industrial production in eastern Europe and the Soviet Union (Tables 1 and 3)

National Income

Plan and actual for the period up to 1955 is from Tables 103 and 113 of **29.3**, except for the following revisions: *Poland:* actual: **18.10** (p. 130); *Rumania:* plan and actual: the plan law, **20.2**, No. 1, 1956, and **20.A**.

1955 to 1960 is from Table XXI, for which see below.

Accumulation

The source for the preceding plan is **29.3** (Table 94), except for the Soviet Union, for which a revised figure was supplied by the State Commission for Long-term Planning of the National Economy (which also supplied the information for 1955 and an indication of the plan for 1956 to 1960).

Accumulation in 1955 and the plan for 1956 to 1960 in other countries are from the following sources:

Czechoslovakia: **5.5**, No. 9, 1956, pages 644–663. 1956 to 1960 was roughly estimated from 1955 and the plan for 1960.

Eastern Germany: 1955: **9.7**, No. 4, 1954, page 450 (for plan, which is known to have been fulfilled); 1956 to 1960: roughly estimated from 1955 and the plan for 1960 in **9.1**, 1 April 1956.

Hungary: 1955: **12.2**, Nos. 3–4, 1955 (p. 286) and **12.5** (pp. 12 and 13); 1956 to 1960: roughly estimated from 1955 and the plan for 1960 in **12.1**, 25 July 1956.

Poland: **18.9** (pp. 293 and 294).

Rumania: 1955: rough estimate based on the known total for five years and changes in gross fixed investment; 1956 to 1960: **20.2**, No. 1, 1956.

Gross Fixed Investment

The figures in column (5) of Table 1 are derived from Table XXII, for which see below. The figures for column (4) are from the same sources, except for 1955, which are from the following: *Czechoslovakia:* **5.7**, No. 1, 1956, p. 11: *eastern Germany:* **9.5**, No. 11, 1956, p. 168 (including an estimate of military investment, derived from the five-year total); *Hungary:* **12.5** (p. 45); *Poland:* **18.9** (pp. 201 and 202); *Rumania:* **20.A**; *Soviet Union:* **25.23** (p. 159).

Industrial Production

The figures are derived from Table XXI, for which see below.

Shares of agriculture, industry and housing in total gross fixed investment and total employment (Table 2)

Employment

The shares in working population for *Albania* are from **1.7** (p. 40) and **1.3**, 1 May 1956, and for *Hungary* from **12.5** (pp. 161 ff.). For other countries they are derived from Table XXIII, for which see below.

Investment

The shares in gross fixed investment are derived from Table XXII, for which see below.

Deliveries and stocks of farm machinery in the Soviet Union and eastern Europe (Tables 7 and XXV)

In addition to plan and plan fulfilment reports, the following sources were used:

Czechoslovakia: **5.10** (p. 45), **5.1**, 1 July 1955, **5.11**, No. 2, 1956 (p. 84) and **5.12**, No. 21, 1956.

Eastern Germany: **9.10** and **9.5**, No. 7, 1956.

Hungary: **12.5**.

Poland: **18.8** and **18.9**.

Elements in the Soviet Five-year Plan for grain (Table 10)

Sown Area

(a) *Maize*

All 1955 areas are from **25.23** (p. 114). 1960 has been derived as follows:

Russian Federation : The 1960 crop is to be 25 per cent of the total grain crop, compared with 6 per cent in 1955 (Yasnov, **25.2**, 23 February 1956). The 1955 yield was thus 11.7 quintals per hectare. The maize yield in 1960 is assumed to be 15 quintals per hectare, implying an area of 17 million hectares, on the assumption that maize yields rose as much as the average.

Ukraine : The preliminary 1960 plan for maize was 10.8 million tons (35 per cent of the Ukraine's total grain crop of 1,885 million puds) and 26 per cent of the grain area (**25.2**, 20 February 1955). Given the total grain area (see below) the yield was thus planned to be 18.3 quintals per hectare. The preliminary plan can hardly have been much changed, as there is little excess land to be absorbed and possible substitution of maize for other grains had presumably already been allowed for. Thus, the 1960 maize area probably equals 6 million hectares.

Kazakhstan : Only 160,000 hectares were under maize for grain. As the area of maize sown for green fodder is rising very rapidly, it has been assumed that perhaps 1 million hectares of maize for grain might be reached by 1960.

Other : By difference from a total of 28 million hectares (which is apparently maize for grain) given in **25.25**.

(b) *Total grain*

Russian Federation : Two-stage harvesting in 1956 was carried out on 22 per cent (13.4 million hectares) of the kolkhoz grain area mechanically reaped and on 31 per cent (approximately 3 million hectares) of the sovkhoz grain area (Belaev, **25.2**, 14 October 1956). Hence the kolkhoz mechanically harvested grain area was 61 million hectares and the sovkhoz area 9.5 million hectares. The total area harvested was obtained on the assumption that mechanical harvesting accounted for a somewhat greater share of the total in the Russian Federation than it did in the Soviet Union as a whole (for which the proportion is given in **25.23**, p. 143); the 1956 sown area mechanically reaped is thus 74 million hectares. In addition, private plots sown to grain would be approximately 1.5 million hectares (since the total for the Soviet Union was 1.8 million). Of the total loss through the winter of 8 million hectares of sowings (mainly grain and most of it in the south) 2 million have been assumed to have been lost in the Russian Federation. The increase in area sown between 1955 and 1956 was believed to be small (sovkhozy in the Russian Federation increased their grain area by only 0.2 million hectares—Tass Agency, 7 June 1956). The 1960 area is derived from the yield and crop data (for which see below).

Ukraine : 22 per cent of the total grain area (of 4,773 thousand hectares) was sown to maize in 1955 (Tass Agency, 30 March 1956). The additional arable area available in the Ukraine is some 1.8 million hectares (**25.18**, No. 4, 1955, p. 65) and only cotton (with a negligible area) is apparently scheduled for a decrease in the Sixth Five-year plan. The 1960 area is therefore taken to be 23 million hectares, an increase over 1955 of just over a million hectares.

Kazakhstan : The 1953 grain area was 7 million hectares (**25.2**, 20 April 1956) and the increase in the wheat area by 1955 approximately 7 million hectares (**25.23**, p. 113), of which millet accounts for probably less than 1.5 million hectares (cf. **25.23**, p. 106), no other grains being significantly sown. Eighteen million hectares of new land had been ploughed in Kazakhstan between 1953 and 1955 (**25.23**, p. 117), and of the additional 5 million hectares of new land in Kazakhstan and the Russian Federation to be ploughed in the next two years, 2 million are assumed to be in Kazakhstan. Of the 20 million hectares of virgin soil, therefore, to be sown in Kazakhstan by 1960 some 18 million are assumed to be grain.

Other : By difference from Soviet area for all grains (**25.23**, p. 106). Sown area will decrease in Central Asia and many of the other republics (e.g., Georgia and the Baltic States). For Central Asia the drop is derived from a decrease in estimated crops, but elsewhere it is assumed to be offset by increases in other parts (e.g., Moldavia and Byelorussia).

Crops and Yields

Russian Federation : Yasnov (**25.2**, 23 February 1956) stated that the Russian grain crop in 1960 would be 1.8 times 1955 (the yield 60 per cent above 1955 and the area more than 10 million hectares above) and that 76 per cent of the increase will be accounted for by higher yields. These data would be approximately satisfied by a crop of 3.6 billion puds in 1955 and 6.5 billion in 1960, given an area rising from 83 million hectares to 94 million, as estimated above. He also indicated the share of maize in the grain crop—6 per cent in 1955 and 25 per cent in 1960.

Ukraine : 1955 total grain from **25.2**, 8 April 1956, and 1960 from **25.25**. The maize crop in 1950 is estimated assuming a yield of 18 quintals per hectare.

Kazakhstan : Total grain in 1955 and 1960 from Chekmenov, **25.18**, No. 2, 1956 (p. 47), with an estimate for the maize yield for 1960.

Other : Crops for each republic have been separately compiled for 1955 from wheat and maize areas and estimated yields and for 1960 from crop increases or targets in **25.25**. The maize yields were estimated primarily on the basis of Moldavian yields, Serdyuk (**25.2**, 20 February 1956) stating that the 1955 yield was 25.5 quintals per hectare.

Thus, the regional distribution of area, crops and yields was as follows:

Regional Composition of Grain Area, Crops, and Yields in 1955 and planned for 1960 in the Soviet Union

	Russian Federation		Ukraine		Kazakhstan		Other		Total USSR	
	1955	1960	1955	1960	1955	1960	1955	1960	1955	1960
Sown area (million ha.)										
Maize	3	17	5	6	—	1	1	4	9	28
Other grains	80	77	16	16	12	24	9	7	117	124
All grains	83	94	21	22	12	25	10	11	126	152
Barn yields (quintals per ha.)										
Maize	12	15	18	18	..	12	18	22	16	17
Other grains	7	10	14	14	4	9	12	12	8	11
Barn crop (million tons)										
Maize	3	26	9	11	—	1	2	9	14	47
Other grains	55	78	23	23	5	22	11	8	94	133
All grains	58	106	32	34	5	23	13	17	108	180

Planned industrial investment and planned increase in industrial output (Table 11)

Industrial investment is from Table XXII and industrial output from Table XXI.

Production of primary sources of energy (Tables 17 and XXVIII)

All figures refer to the primary energy content of the gross output of fuels. Except in the case of hydro-electricity, which has been converted on the basis of fuel consumption in modern thermal plants, no account was taken of the relative efficiency of different kinds of fuel.

Data on physical quantities were generally available in statistical year-books, plan fulfilment reports and the national plans, except for fuelwood, where the figures were derived from **35.1** or have been roughly estimated. (The source for fuelwood output in the Soviet Union was **25.A** and for Rumanian coal **20.A**).

Official estimates of the energy content of coal production were available for eastern Germany in **9.11**, No. 12, 1956 (p. 536) and for Hungary (cf. **29.1**, Vol. 7, No. 2). For other countries the conversion factors are in general the same as those used for Table VI-2 (the factor for natural gas used for the Soviet Union in that table has been applied to all countries, except Rumania), while separate coefficients for brown coal in Czechoslovakia and Rumania were used on the basis of **29.B**. For countries other than eastern Germany and Hungary it has been assumed that the average calorific value of hard and brown coal would not change between 1950 and 1960, an assumption which tends to over-estimate the rate of growth of production in terms of hard coal.

Fuel consumption in thermal plants (Table 19)

Czechoslovakia : **5.5**, 1956, No. 10 (p. 731), **5.6**, No. 6, 1956, and **5.1**, 17 June 1956.

Eastern Germany : **9.11**, No. 12, 1956 (p. 537) and **9.1**, 1 April 1956.

Hungary : **12.3**, No. 10, 1956 (p. 869) and **12.1**, 25 July 1956.

Poland : **18.9.**

Rumania : **20.3.**

Soviet Union : **25.23** and **25.25.**

Increase of income, investment and output in the Soviet Union and in eastern Europe, 1950 to 1955, and planned for 1955 to 1960 (Table XXI)

For state fixed investment the sources are the same as for Table XXII. The sources for other items are as follows:

Albania : 1950 to 1955—national income, real wages and farm income: **1.6**, p. 25, and industrial output from the same source, p. 9; output per man: directives on the second Five-year plan in **1.3**, 1 May 1956 (p. 1); agricultural output: **1.5**, p. 48. *1955 to 1960*—national income, real wages, and farm income: **1.5**, p. 109; industrial and agricultural output: **1.6** (pp. 37 and 39); industrial output per man: **1.6**, p. 80.

Czechoslovakia : 1950 to 1955—national income: **29.3** (p. 241) and **5.5**, No. 9, 1956 (p. 646); industrial output and output per man: **5.7**, No. 1, 1956; agricultural output: **5.3**, No. 12, 1956 (p. 535); real wages (industrial workers): money wages from **29.1**, No. 1, 1955 (p. 33), No. 1, 1956 (p. 29), **5.1**, 27 November 1954, and **5.7**, No. 1, 1956, have been divided by indices of the cost of living shown in Table I-18 and in **29.1**, No. 1, 1955 (Table 17, p. 33), and No. 1, 1956 (Table 13, p. 29). *1955 to 1960*—the plan is given in **5.1**, 17 June 1956, which has been used together with **5.6**, No. 6, 1956, and **5.5**, No. 6, 1956. In addition, wages (of industrial workers) are taken from **5.5**, No. 9, 1956 (p. 651) and farm income from **5.12**, No. 6, 1956 (p. 801).

Eastern Germany : 1950 to 1955—national income: **9.1**, 4 February 1956; industrial output and employment **9.10** (pp. 90 and 125); real wages: money wages from **9.10** (p. 99) have been divided by the cost of living index (1955 on 1954 from the same source and 1954 on 1950 from **29.1**, No. 3, 1954, p. 32).
1955 to 1960—the plan is given in **9.1**, 1 April 1956.

Hungary : 1950 to 1955—national income, wages and farm income: **12.5** (pp. 12-15); industrial output: **29.1**, No. 2, 1955 (p. 96) and **12.5** (pp. 54-56); agricultural output and output per man and employment in industry: **12.5** (pp. 96 and 165-167).
1955 to 1960—the plan is given in **12.1**, 25 July 1956.

Poland : 1950 to 1955—national income: **18.10** (p. 130); industrial output: **18.9** (p. 81); industrial employment: **18.9** (p. 102) and the plan fulfilment report for 1950 in **18.6**, No. 1, 1951; agricultural output: **18.9** (p. 128); real wages: **29.3** (p. 176).
1955 to 1960—the plan is given in **18.1**, 3 August 1956, and **18.5**, No. 10, 1956.

Rumania : 1950 to 1955—national income and agricultural output: **20.A** and the plan fulfilment report for 1955 in **20.3**, No. 2, 1956; gross industrial output: **29.3** (p. 237); net industrial and agricultural output: **20.2**, No. 3, 1956; real wages (industrial workers): **20.3**, 30 March 1956.
1955 to 1960—the plan is given in **20.2**, No. 1, 1956. Real wages (industrial workers) are from **20.3**, 30 March 1956.

Soviet Union : Planned agricultural output in 1960: **25.11**, No. 6, 1956 (p. 4). All other data are from **29.3** (Table 103, p. 219).

Gross fixed investment by sectors in the Soviet Union and eastern Europe (Table XXII)

Albania : **1.6** (p. 75).

Czechoslovakia : The actual and plan figures in the note to the table are from the plan directives in **5.6**, June 1956 (p. 298).

Eastern Germany : Actual: **9.5**, No. 6, 1956 (pp. 71-73) gave total state investment for 1951 to 1955, and No. 11, 1956 (p. 168) the total of state and other investment for 1950 and 1955, together with investment in agriculture and industry. From **9.1**, 4 February 1956, the aggregate of investment for the five years 1951 to 1955 (including non-state investment) was obtained, while **9.A** gave index numbers of state investment by sectors at current prices for 1950 to 1954. Non-state investment by sectors in current prices, and price indices, are from **29.3** (p. 242). Plan: **9.1**, 1 April 1956.

Hungary : Actual: **29.3** (p. 243) and **12.5** (pp. 45-48); Plan: **12.1**, 25 July 1956.

Poland : Actual: **18.1**, 3 August 1956; Plan: the distribution percentages were taken from the same source and applied to the total in **18.5**, No. 10, 1956 (p. 46).

Rumania : All data are from **29.3** (p. 236).

Soviet Union : State centralized investment has been derived as follows:

Industry

Investment from centralized funds in industry for 1956 to 1960 would be roughly 600 billion roubles, according to **25.23** (p. 160) and **25.2**, 22 February 1956. The latter source stated that this is 70 per cent above 1951 to 1955 actual. Plan and actual investment for the principal light industrial branches is given in **25.2**, 24 February 1956, and heavy industry obtained as a residual (after rough estimates had been made for other light industries). These figures for industry include, however, investment in workers' housing. The amount to be deducted for light industry has been estimated from data on the number of houses built or to be built, housing costs, and values in current prices (for actual investment), the main sources for which were: **25.7**, No. 3, 1956 (p. 5), **25.2**, 15 and 19 November 1953 and **25.5**, No. 13 (p. 38). For heavy industry the estimates are based on a wide variety of reports of ministerial construction for 1951 to 1955 and on information in **25.14** for planned construction. Similar deductions have been made for agriculture and transport on the basis of information in **25.3**, 25 March 1954, **25.2**, 22 December 1956, and **25.15**, No. 3, 1956. A further adjustment is, however, necessary, since these figures of enterprise housing include about 10 per cent (cf. **25.23**, p. 163) which is not financed from centralized funds, but from retained profits. The distribution of total retained profits between the various industrial sectors can be obtained from **29.3** (p. 210) and **25.18**, No. 1, 1956. Decentralized investment in housing for 1956 to 1960 was assumed to be the same as 1951 to 1955 actual, since wholesale price reductions should offset increases in profits through lower costs.

Agriculture

State investment planned for 1956–60 and an index of investment in 1951–55 was given by Belaev in **25.2**, 23 February 1956. The index base can be derived from Khrushchev in **25.2**, 15 February 1956. The actual investment by collective farms is given in **25.23** (p. 159) as 61.4 million roubles, from which non-productive investment other than housing (included under social capital) must be deducted (assumed to be one-seventh of total collective farm building, on the basis of Ravdel in **25.5**, No. 17, 1956, p. 123). Planned investment is about 100 billion roubles (**25.2**, **22** February 1956). Estimates for actual and planned dwelling construction in state farms and MTS have been deducted (for actual, see under industry above; the plan was assumed to be twice the actual).

Transport and communications

Actual: **29.3** (p. 247); planned: **25.2**, 22 February 1956 (less estimated deductions for dwellings).

Housing

Actual state investment in 1950 prices has been estimated at 95 billion roubles from the relationship with 1946 to 1950 in **25.2**, 15 February 1956, and **25.13**, No. 9, 1954 (p. 22). 1955 prices have been assumed the same as 1950 prices, since the fall in material prices is assumed offset by contemporary increases in building wages. Planned house-building is double actual (**25.25**) but costs should fall by 20 per cent by 1960 (**25.25**), estimated to correspond to an average for the plan period of 15 per cent.

To these plan and actual figures have been added investment through decentralized funds, estimated from **25.13**, No. 9, 1955 and **25.23** (p. 163).

Social capital

Plan and actual for some amenities (including housing): **25.2**, 22 February 1956. Estimates for the remaining part of social capital are based on indications in **25.25** and **25.26**.

Other investment

Derived as a residual from total investment given in **25.23**.

Non-centralized investment (actual) is from 25.23 and assumed the same for the plan period. In both instances, these sums have been attributed to housing (cf. above) and other social capital.

Number of gainfully occupied persons and planned changes in employment in the Soviet Union, Poland, Czechoslovakia, and eastern Germany (Table XXIII)

Czechoslovakia : 1955: **5.10** (p. 75); planned changes: **5.5**, No. 9, 1956 (pp. 644-663).

Eastern Germany : 1955: **9.10** (pp. 105, 106, 111 and 112); planned changes: **9.1**, 1 April 1956.

Poland : 1955: **18.9** (pp. 123, 206, 220, 277 and 279); planned changes: **18.1**, 3 August 1956 and **18.5**, No. 10, 1956.

Soviet Union : 1955—The principal source used was **25.23**, which gave on pages 187–188 the percentage distribution of all gainfully occupied, by sector and employment status respectively. Absolute figures corresponding to those percentages have been derived as follows:

State wage and salary earners : **25.23** (p. 190).

Membership of handicraft co-operatives : ibid. (p. 189).

Employment in retail co-operatives : **25.9** (p. 113).

Non-state agricultural-occupied : **25.23** (p. 190) obtained from the percentage relationship to the total labour force (see below) in the following manner:

41.8 per cent of all gainfully occupied persons were wage and salary earners working in material producing industries, and the composition of this percentage has been determined thus:

Industry, construction, state farms, MTS, trade and public catering: **25.23** (p. 190); goods transport: 75 per cent of all rail and water transport (cf. rail cost break-down in **25.24**, p. 577), and 80 per cent of other transport and loading and unloading operations; non-personal communications services: half the employment shown; forestry: roughly double the 1937 employment (timber-cutting output in 1955 was double pre-war, but productivity had risen only 6 per cent). Of the remaining 3,156,000 workers accounted for in **25.23**, one million were estimated to be in material producing branches. Adjustments were then made to building and other transport in the light of a comparison of coverage of employment for 1932 and 1937 in **25.21** (p. 508) and **25.20** (p. 228) respectively with the coverage of the 1955 figures. Finally, workers hired by collective farms were estimated from Z. Ravdel in **25.5**, No. 17, 1956, which gave the wage bill of building labour (accounting for the bulk) in 1955. (The average annual wage was put at 3,600 roubles a year, based on the rural workers' minima set out in the decree of 8 September 1956).

Thus, there were 37,990 thousand workers and employees in material producing sectors in 1955, distributed as follows (in thousands) :

Industry : 17,362; *Construction*—3,172 plus adjustment of 1,000; *State farms :* 2,832; *MTS :* 3,058; *Trade :* 2,929; *Catering :* 856; *Rail and water transport :* 1,940; *Other transport*—1,969 plus adjustment of 400; *Communications :* 306; *Forestry :* 500; *Hired farm workers :* 670.

Since these constitute 41.8 per cent of the gainfully occupied, the total would be 90.88 million (assuming that the percentage relationship relates, as do the absolute figures, to an annual average and not to an end-of-year count).

Of this total, 43 per cent were in agriculture and forestry (**25.23, p.** 187), and the proportion engaged in the socialist sector was obtained as follows:

Collective farmers engaged in communal work or on private plots are 37.5 per cent of all occupied (**25.23**, p. 188), and individual peasants 0.2 per cent (0.4 per cent for individual peasants and non-co-operative craftsmen, but cf. *ibid.* page 99, on the number of peasant holdings). Workers' families occupied on private plots are 3.7 per cent. Deduction must then be made as follows for members of fishing and craft collectives and farm workers exclusively engaged in non-agricultural occupations, while state farm workers, permanent employees of MTS and forestry workers must be added:

Employment in fishing co-operatives has been estimated from data on the annual catch per man (**25.17**, No. 8, 1954) and the total catch of co-operatives (**25.17**, No. 7, 1956). Farm workers employed in building (including hired workers, for which see above) were given by Ravdel in **25.5**, No. 17, 1956, and other farm workers in non-agricultural occupations were derived as a residual from total occupied in agriculture and forestry (**25.23**, p. 187). Employment in MTS is from **25.23** (pp. 138 and 190), less deductions for workers taken on in 1953 that appear to have retained membership of collective farms (**25.2**, 31 January 1953). State farm employment is from **25.23**, p. 135 (with a deduction for non-agricultural occupations as there shown). The derivation of forestry employment was explained above.

Total occupied in agriculture and forestry was consequently obtained as follows (in millions):

Collective farmers engaged in communal or private farm work	34.08
Individual peasants	0.20
Workers' families engaged on private plots	3.36
State farm workers in agricultural occupations	2.53
MTS workers in agricultural occupations	1.46
Forestry workers	0.50
Less Members of fishing co-operatives	−0.41
Less Collective farmers on building work	−0.93
	40.79
Less Collective farmers in other non-agricultural occupations	−1.71
Total occupied in farming and forestry	39.08

Employment in other sectors was obtained from tables on the occupied labour force and state employment in **25.23** (pp. 187 and 190 respectively) as follows:

Gainfully occupied Manpower in the Soviet Union in 1955

Millions

	State	Co-operatives and collectives	Employed on own account	Total [a]
Industry	18.7 [b]	3.4 [c]	0.2 [d]	28
Construction	4.2 [e]	1.6 [f]	—	28.1
Agriculture and forestry	4.5 [g]	31.0 [g]	3.6 [g]	39.1
Transport and communications	5.6 [h]	—	—	5.6
Trade and supply	2.7 [i]	1.3 [j]	0.5 [k]	4.5
Education and health	8.0 [l]	—	0.2 [m]	8.2
Administration	4.7 [n]	—	0.7 [o]	3.6
Other				1.8
Total	48.4 [h]	37.3	5.2	90.9

[a] Percentages given in **25.23**, p. 187, applied to the estimated total of 90.9 described above.

[b] 17.4 listed in **25.23** (p. 190) *plus* 0.4 in transport repair shops and yards, 0.5 in forestry and 0.4 in non-agricultural work on MTS and state farms (see above).

[c] 1.8 in handicraft co-operatives (**25.23**, p. 189), 2.6 collective farmers engaged in non-agricultural work and 0.4 members of fishing collectives (see above), less farmers engaged in trade (see below).

[d] Non-co-operative craftsmen (see above).

[e] 3.2 listed in **25.23** (p. 190) *plus* 1.0 other construction workers (see above).

[f] Z. Ravdel, **25.5**, No. 17, 1956.

[g] See above.

[h] **25.23** (p. 190).

[i] 2.5 in **25.9**, p. 114, *plus* residual of 0.2 between total occupied in trade and known constituents (presumed to refer to the employees of trade agencies excluded from the table—cf. footnote in the source).

[j] **25.9** (p. 114).

[k] A. Mikoyan, **25.2**, 27 April 1954.

[l] 7.2 in **25.23** (p. 190), *plus* an estimate for employment in museums, art, cinemas, etc.

[m] Rough estimate for self-employed doctors, free-lance writers, etc. The sum of the estimates in this and in state employment equals the residual of total occupied, *less* listed employment in education and health.

[n] Residual of above-listed employment and total.

[o] Residual of above-listed occupations and all gainfully employed.

Change 1955 to 1960

All figures are from output and productivity data, given in **25.25** (productivity for agriculture being an estimated average of targets for state and collective farms).

Output pattern of field production in 1955 and planned for 1960 in the Soviet Union and eastern Europe (Table XXIV)

Albania: 1955 is derived from 1950 (**1.7**, p. 64) and increases over 1950 by 1955 (**1.5**, p. 71). 1960 is derived from increases over 1955 (**1.6**, p. 51).

The sources used for other countries were national plan and plan fulfilment reports, statistical yearbooks and bulletins, and **29.C**. (For the Soviet Union see also the notes on sources and methods to Table 10).

IV. CURRENT DEVELOPMENTS IN WESTERN EUROPE

(Chapter III, Tables 1, 2, 10, 12, 13, 16, 19, I-VII, IX-XX, text table on p. III-20, and Charts 1, 4-6 and 8)

Industrial output by sectors in western Europe (Table 1 and Charts 1 and 5)

Correction for Seasonal Fluctuations

Where necessary, official index numbers have been corrected for the changing number of working days in each month before adjusting for seasonal variation. Such corrections have been made after taking account of the different industrial holidays (including Saturdays) in each country.

For each of the four series, moving averages of twelve months have been calculated, relating generally to 1950–1954. The moving-average index numbers have been expressed as a ratio of the corresponding original index numbers adjusted for the changing number of working days. After elimination of those ratios which appeared unduly removed from the general pattern observed, averages of the remaining ratios have been calculated over the particular period considered and adjusted so as to average unity.

Adjustments

Sweden : a seasonally adjusted series is officially published and has been combined with the series for electricity, adjusted by the secretariat.

United Kingdom : a seasonally adjusted series relating to manufacturing is officially published and has been combined with the series for mining and public utilities, adjusted by the secretariat.

Yugoslavia : no adjustment has been made either for the changing number of working days or for seasonal variation.

Figures for food-processing industries shown in Chart 1 are from **33.1**.

Utilization of resources (Table 2)

A = *All items other than the break-down of gross fixed investment*
B = *The break-down of gross fixed investment*

Austria :

A. *1955* : **2.5**, except for exports and imports, which have been deflated by price indices derived from **33.1**, January 1957; *1956:* **2.1**, December 1956.

B. **2.1**, December 1956.

Finland :

A. *1955:* **7.6**, 1956. Repairs and maintenance have been deducted on the basis of the proportion that they represented of total gross fixed investment in 1951, as given in **7.6**, 1952. *1956:* **7.A.**

France :

A. *1955 :* **8.7 (i)** ; *1956* : **36.A**, which is also the source for B.

Western Germany :

A. *1955 :* **10.3**, September 1956; *1956 :* **10.7**, No. 4, 1956.

B. *1955 :* **36.1** ; *1956 :* **10.7**, No. 4, 1956.

Italy :

A. *1955 :* **33.1**, January 1956; *1956 :* derived from a statement made on 31 December 1956 by Signor Giuseppe Medici, Minister of Finance, and reported in **36.2**, 1 January 1957.

Netherlands :

A. *1955:* **33.1**, January 1957; *1956:* national product was derived from **36.3**, No. 3, 1956, and private consumption is from Table 10.

Norway :

All data are from **36.4**.

Sweden :

All data are from **36.B.** Repairs and maintenance are excluded.

United Kingdom :

A. *1955 :* **26.10** ; *1956 :* the supplement to **36.5**, January 1956, which is also the source for B.

Yugoslavia :

A. *1955 :* imports and exports are from **27.2** and other items from **27.3**, 30 March 1956. *1956 :* imports and exports are from **27.2**, public consumption from **27.1**, 27 November 1956, and national product and gross fixed investment from **27.1**, 22 December 1956. Private consumption has been estimated by difference.

B. **27.2.**

Industrial earnings and private consumption (Table 10 and Chart 4)

Hourly Earnings

Money earnings are from national statistics, and have been deflated (as also have the wage bills) by the cost-of-living indices in Table 15.

In general, the series relate to manufacturing industry, with the following exceptions: *Austria :* includes building; *Denmark :* includes building, services and transport; *Finland, Norway and Sweden :* includes mining; *western Germany :* includes building; *Netherlands :* the figures in Table 10 relate to building, metallurgy, mining and textiles and those in Chart 4 to adult males in manufacturing.

For *Italy*, special bonuses and holiday pay have been excluded, and for the *United Kingdom*, earnings were extrapolated from April 1956 on the basis of wage rate indices.

Industrial Wage Bill

Data are either directly given in the sources indicated below or derived from hourly earnings, taking into account changes in industrial employment and the working week (for the sources of which see the notes on sources and methods to Table 14).

Austria : **2.2**.

Belgium : 1955: hourly earnings (**3.3**); 1956: wage rates (**3.5**).

Denmark : Hourly earnings and total number of hours worked in industry (**6.1**).

Finland : 1955: **7.6**; 1956: hourly earnings (**7.1**) and total number of hours worked (**7.3**).

France : Wage rates and employment and weekly hours worked per worker (**8.4**).

Western Germany : **10.4 (i)**.

Italy : Hourly earnings and industrial employment (**14.6**), no correction being made for changes in working hours.

Netherlands : **16.4**.

Norway : Hourly earnings and employment in industry (**17.1**), no correction being made for changes in working hours.

Sweden : **22.1** (October issue).

Switzerland : Hourly earnings, except for wage rates in 1956 (June issue of **23.1**) and employment, no correction being made for changes in working hours.

United Kingdom : Hourly earnings, extrapolated from April to October 1956 by wage rate indices (**26.3**), employment and average weekly hours worked.

World trade by area (Table 12)

Share in World Trade in 1954

The trade of western Europe with the United States is taken from Tables VI and VII and corresponding tables in previous SURVEYS. Total exports from " other overseas countries " have been derived from **30.1**, November 1956 (Special Table B). Their exports to western Europe and the United States have been taken as equal to the corresponding imports of those countries, adjusted to f.o.b. values, and their exports to " other overseas countries " are therefore a residual.

Percentage increases have been computed from current f.o.b. values (similarly obtained), except for imports into western Europe from all sources (which are valued c.i.f.).

The classification of countries exporting mainly agricultural products and mainly mineral products is the same as that used for Chart 6.

The trade of the Soviet Union, eastern Europe and China with each other and the trade of Japan with all countries are not included in the table.

Exports of selected western European countries, by main commodity groups (Table 13)

The classification used in Table VIII has been regrouped as follows:

	Table VIII group		*Table VIII group*
Food, drink, tobacco . . .	1	Textile goods	18
Raw materials and fuels . .	2 to 7	Machinery	9 to 12
Metal manufactures	8	Transport equipment	13 to 16
Chemical products	17	Other commodities	19 and 20

Data in current prices have been converted into January-September 1955 prices by use of unit-value or commodity price indices as follows:

Country	*Type of index* [a]	*Source*	*Country*	*Type of index* [a]	*Source*
Austria	U [b]	2.4	Italy	U, W	14.1
Belgium-Luxembourg	U, W	3.4	Netherlands	W	16.2
Denmark	U	6.1	Norway	U	17.2
France	U, U_1	8.2	Sweden	U	22.A
Western Germany	U_1	10.5	United Kingdom	U, U_1	26.4

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[a] U = Unit-value index published in national sources.
U_1 = Unit-value index derived from current value and volume indices.
U_2 = Unit-value index directly computed from values and physical quantities.
W = Wholesale price index.

[b] In the absence of fuller information, the unit-value index for total exports was applied uniformly to all commodity groups.

Output per man-hour and earnings in industry (Table 16)

Hourly earnings are from the same sources as for Table 10.

Output per man-hour has been obtained by dividing indices of production by the indices of aggregate hours worked. When total hours worked were not directly available, they have been estimated on the basis of indices of employment and of hours worked per worker and per week. Except as otherwise indicated, output per man-hour relates to total industry, including mining and public utilities.

The following sources were used for indices of aggregate hours worked:

Austria : **2.1**.

Belgium : **3.4**, **3.5** and **3.6**. For 1956 no index of hours worked was available and figures relate to output per worker.

Denmark : **6.1**. Gas and electricity are excluded.

Finland : **7.1** and **7.3**.

France : **8.4**.

Western Germany : **10.2**. Gas and electricity are excluded.

Italy : **14.6**.

Netherlands : **16.1** and **16.2**. For 1956 no index of hours worked was available and figures relate to output per worker.

Norway : 1955: **17.2**, 17 December 1956; 1956: **17.1** and **17.3**. For 1956 no index of hours worked was available and figures relate to output per worker.

Sweden : **22.2**. No index of hours worked is available and figures relate to output per worker. Gas and electricity are excluded.

United Kingdom : **26.2** and **26.3**. 1955: hours worked relate to an average of April and October; 1956: hours worked have been estimated from data on overtime and short-time.

Share of European trade passing through the Suez Canal in 1955 (Table 19)

The trade with the following countries has been considered as trade through the Suez Canal: Aden, Afghanistan, Bahrein, Burma, Cambodia, Ceylon, China, Egypt, Ethiopia, Formosa, Hong Kong, India, Indonesia, Iran, Iraq, Israel, Jordan, Kenya-Uganda, Korea, Kuwait, Laos, Lebanon, Malaya and Singapore, Madagascar, Mozambique, Muscat and Oman, Pakistan, Philippines, Qatar, Saudi Arabia, Sudan, Syria, Tanganyika, Thailand, Viet-Nam, Yemen.

Balance of payments of Europe and other areas with the United States (Table I)

Goods and services provided by the United States under the military aid programme are excluded throughout the table. The amounts of such aid, as given in the original source, are as follows (in millions of dollars):

	Western Europe	*Canada*	*Latin American Republics*	*All other countries*	*Tota*
January-September 1954	1 858	—	35	650	2 543
,, 1955	1 251	—	28	432	1 711
,, 1956	1 535	—	49	532	2 116 [a]

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[a] A later figure of $2 194 million has not been used since a geographical distribution was not available.

Index numbers of volume and unit values for total imports and exports and for commodity groups (Tables II-V)

Besides national statistical or foreign trade bulletins, the following sources were used: *Finland:* **7.2**; *western Germany:* **10.5**; *Portugal:* **19.A**; *Sweden:* **22.2** and **22.12**; *Switzerland:* **23.3**; *Turkey:* **24.1**; *United Kingdom:* **26.1**; *United States:* **28.1**.

In certain cases (for example, Belgium-Luxembourg), annual indices differ from corresponding averages of quarterly indices, both because they are computed on revised data and because their method of computation is often not the same.

For Italy and the United Kingdom, for which two different original series have been linked, certain quarterly indices have been estimated by applying to the annual index in the new series the quarterly movements observed in the old one.

Trade of nineteen western European countries by origin and destination, in current dollars (Tables VI and VII)

(a) **General**

The data have been taken from national trade statistics of European countries and the United States, and no attempt has been made to adjust the figures, except as mentioned below. The import values are all on a c.i.f. basis, except in the case of the United States; the exports are all f.o.b. The figures relate, wherever possible, to special trade by countries of origin and consumption, except for Denmark, where they refer to countries of purchase and sale. However, imports for the United Kingdom relate to general trade, since a classification of special (retained) imports is not available by countries of origin. For United States exports, goods coming under the heading " Special Category Commodities, Categories 1 and 2 " are not included, as a classification by countries of destination is not available.

The figures for Germany relate to the trade of the three western zones and west Berlin. Internal trade between western and eastern Germany is nowhere included.

(b) **Principal Adjustments**

(i) Trade between the United Kingdom and the Channel Islands and between Denmark and the Faroë Islands and Greenland has been considered as internal trade and therefore eliminated. Since 1 January 1954 the Faroë Islands and Greenland have in fact become part of the Danish customs territory.

(ii) Certain items which cannot reasonably be assigned to any particular region (such as ships' stores and the whale fisheries of the United Kingdom) have been excluded.

(iii) In the analysis of Denmark's trade, the figures have been adjusted to take account of the fact that certain imports recorded as originating in the United Kingdom, the United States and the Soviet Union, and certain exports recorded as destined for the United Kingdom and the United States were actually imports from the British, United States and Soviet zones of occupation of Germany and exports to the British and the United States zones.

(iv) A significant part of the monthly trade data for Finland is not specified by countries. The geographical distribution given in the annual statistics has been assumed to apply to this unspecified portion.

(v) The value figures for all countries (including Austria) include imports under foreign aid programmes.

(vi) In the case of the Netherlands, the diamond trade, for which no break-down by countries is available, has been excluded for 1954. As from January 1955, this trade is included in data by country of origin and destination in the national trade statistics, but is not separately distinguished.

(vii) The figures for Spain for January–September 1956 are estimates based on monthly figures so far published.

(viii) Trade in industrial gold has been excluded as indicated below:

France: non-monetary gold (items 16–24 for the years 1954 and 1955 and 71-07 for 1956 in the French nomenclature) is included in the French statistics, but has been excluded from Tables VI and VII. The figures for gold shipments by main areas in the periods shown are as follows:

French imports and exports of non-monetary gold

Millions of current dollars

	January-September		
	1954	*1955*	*1956*
Total imports	124.4	38.4	74.3
of which:			
from Group I	30.1	26.9	60.7
II	38.5	4.1	9.3
VII	—	3.7	2.9
VIII	35.8	—	—
XI	3.8	3.1	—
XIII	8.1	—	—
XIV	—	—	0.2
XV	2.1	0.2	1.2
Total exports	119.6	39.7	75.6
of which:			
to Group II	108.1	32.4	72.4
III	—	—	0.3
XIV	1.4	1.8	2.0
XV	7.9	4.9	0.7

Finland: Similarly, Finland's imports of monetary gold from the Soviet Union, which are recorded only in September 1954 and amount to $5.0 million, have been excluded.

(c) Conversion into United States Dollars

The trade conversion factors used are those given in **30.2**.

(d) Grouping of Countries

The detailed classification of countries is essentially the same as that used in the SURVEY for 1954 (see pp. 296–7), with the following minor differences:

Group XIII: For 1955 and 1956, French India is included in India and excluded from Group XIV.

Group XIV and XV: The trade with Cambodia, Laos and Viet-Nam is excluded from " Affiliated overseas areas " and included in " Other overseas areas " in all periods.

Furthermore, figures for " Dollar area " (group XVIII) include trade with Liberia.

Exports of selected European countries and the United States by main commodity groups and by areas of destination at 1950 prices (Table IX)

(a) Sources

The basic statistical material has been obtained from **33.2 (iv)** and national statistics.

(b) Area of Destination

Areas of destination are those shown in Table VI (for Denmark, trade with Greenland and Faroë Islands is included). The original source used, however—**33.2 (iv)**—gives a different area break-down, and a certain amount of rearrangement was necessary, as follows:

Classification in Table IX	*OEEC classification*
North America	North America.
Latin America	Central America *plus* South America.
Overseas sterling area	Non-member countries in sterling area *plus* British overseas territories.
Affiliated overseas territories . .	Overseas territories of member countries *less* British overseas territories.
Other overseas countries	Other non-member countries in Africa, in Asia, and in Oceania.
Eastern Europe	Eastern Europe
Western Europe	Metropolitan member countries *plus* other Europe.
Dollar area	Dollar area.

Certain changes have been introduced as compared with a similar table in the SURVEY for 1954 (Table XLVIII). For all countries except France and the United States, trade with Indochina in 1953 and 1954 is included in figures under " Affiliated overseas territories ", and in 1955 under " Other overseas countries ".

For all countries, trade with Liberia in 1954 and 1955 is included under " Dollar area ". The comparability from year to year is thus slightly affected. Exports to Indochina and Liberia are shown below:

	Exports to Indochina		*Exports to Liberia*
	Millions of dollars		
	1953	*1954*	*1953*
United Kingdom	7.7	5.1	28.8
France			0.4
Western Germany . . .	2.6	1.6	18.6
Italy	0.9	0.4	0.1
Belgium-Luxembourg . .	1.5	1.4	0.3

	Exports to Indochina		*Exports to Liberia*
	Millions of dollars		
	1953	*1954*	*1953*
Netherlands	3.2	2.7	0.8
Denmark	1.5	1.6	0.2
Norway	0.2	0.2	0.1
Sweden	0.6	0.6	4.6
United States			15.8

Figures for " Total overseas countries " were obtained by deducting exports to western and eastern Europe from exports to the world. Consequently, whenever figures for exports to Europe are not complete, the unallocated part is automatically included in overseas exports (this applies, in particular, to the United States exports). For the same reason, figures given for individual overseas areas may not necessarily add up to " Total overseas countries ".

The United States exports for 1954 and 1955 include an important amount of exports specified by commodity group but not by destination. The value of these exports (in millions of dollars at 1950 prices) is as follows :

ECE Commodity Group	*Value, f.o.b.*	
	1954	*1955*
1	61.2	66.0
of which: *cereals and preparations*	*6.3*	*7.8*
fruits and vegetables	*40.4*	*34.4*
tobacco	*1.4*	*1.1*
2	17.9	21.3
3	12.3	13.6
of which: *iron and steel*	*8.8*	*10.1*
4	1.9	2.0
5	1.7	1.6
6	17.3	17.8
7	12.2	13.7
8	43.3	46.4
9	6.9	7.4
10	7.5	7.8
11	73.9	87.3
12	52.2	56.6
13	6.7	7.5
14	1.0	0.9
15	34.2	39.2
16	1.5	11.6
17	55.7	58.9
18	83.8	84.7
of which: *cotton fabrics*	*18.6*	*18.5*
19	14.6	15.2
20	123.2	129.1
Total	629.0	688.6

For the reason given above, these values have been added to " Total overseas countries ".

An attempt has been made to show the order of magnitude of the unspecified part of exports to each area. These unspecified exports being known in current values (they are the difference between the total of all exports and the total of the specified values), they have been estimated at 1950 prices by distributing the total of $629.0 million in 1954 and $688.6 million in 1955 in proportion to the current values by areas.

Bunkers for foreign ships are, of course, not given by destination, but they are included in the total exports of group 2. For the same reason, ships' stores were included only in total exports in the corresponding commodity groups.

(c) Commodity Groups

The 20-group classification used in Table IX is given in Table A in terms of the SITC. Owing to insufficient information, the commodity classification used for Dutch exports in 1953 differs slightly from that given in Table A, the adjustment made being as follows :

SITC Group	*ECE Commodity Group*	
	Excluded from	*Included in*
263	5	7
266	18	7
631	19	20
687 and 689	3	20
691	8	20

Furthermore, in 1954 and 1955, SITC Group 691 is excluded from ECE Commodity Group 8 and included in Group 20. The latter also includes part of the SITC Group 652 (which, in principle, belongs to ECE Group 18).

(d) Conversion into 1950 Prices

Export figures in current dollars were converted to 1950 prices by using special indices computed for each commodity group and for each exporting country. In principle, these indices are unit-value indices for exports to all destinations, either officially published or derived from volume and current value indices given in national publications. Where no foreign trade indices were available, wholesale price indices, or specially computed unit-value indices for the main items included in each commodity group, were used. As available unit-value indices are often more detailed than the 20-group commodity classification, certain groups were further broken down into appropriate sub-groups before conversion into 1950 dollars.

For each exporting country, the detailed unit-value indices were adjusted so that the resulting changes in the dollar volume of total exports agreed with the officially published indices of the volume of exports. Since, in the United States, exports of "special categories " are included in the official volume index but excluded from the commodity-by-destination data, the adjustment was made on the basis of the unit-value index for total exports. As the official volume index for Belgium-Luxembourg does not cover all the commodities traded, the adjustment was made on the basis of the unit-value index for total exports.

The sources and types of indices used in the conversion into 1950 dollars are as follows :

Country	*Type of index*[a]	*Source*
Belgium-Luxembourg	U	3.3
Denmark	U	6.1
France	U_1	8.2
Western Germany	U_1	10.5
Italy	U_1 and U_2	14.11
Netherlands	W	16.2
Norway	U	17.2
Sweden	U	22.A
United Kingdom	U and U_1	26.4
United States	W	28.2
	U	28.1

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[a] For all countries, a limited number of unit-value indices have been computed from values and physical quantities. Only sources other than standard national trade statistics are specified in the table. For symbols, see p. 11 of this Appendix.

TABLE A

Commodity classification of twenty groups in terms of the SITC

ECE commodity group and sub-group	*SITC code number*
1. Food, drink and tobacco	Sections 0, 1; Division 92
of which: Live animals and meat	Divisions 00 and 01
Dairy products	Division 02
Cereals and preparations	Division 04
Fruits and vegetables	Division 05
of which: Fruits	Groups 051, 052 and 053
Vegetables	Groups 054, 055
Beverages	Division 11
Tobacco and products	Division 12
2. Mineral fuels and petroleum products	Section 3
3. Metallic ores and base metals (unwrought and simply worked)	Divisions 28, 68
of which: Ores and scrap	Division 28
Iron and steel	Group 681
4. Oil-seeds, fats and oils	Division 22, section 4
5. Textile fibres, natural	Division 26 *less* group 266
6. Selected construction materials	Groups 661, 662, 664, division 81
7. Other raw materials	Divisions 21, 23, 24, 25, 27, 29
of which: Timber	Division 24
Wood-pulp	Division 25
8. Metal manufactures	Division 69
9. Power-generating (except electric) machinery	Group 711
10. Agricultural machinery	Group 712
11. Metal-working, mining, construction and other industrial machinery	Groups 714, 715, 716
12. Electric machinery	Group 721
13. Tractors, other than steam	Group 713
14. Railway vehicles	Group 731
15. Road motor vehicles	Group 732
16. Other vehicles	Groups 733, 734, 735
17. Chemicals	Section 5
18. Textile manufactures and clothing	Group 266, divisions 65, 84
of which: Textile yarns	Groups 266 and 651
Cotton fabrics	Group 652
Other fabrics	Division 65 *less* groups 651 and 652
19. Paper, manufactures of wood and paper (excluding furniture)	Divisions 63, 64
20. All other commodities	Section 8 *less* divisions 81 and 84; divisions 61, 62, 67, 91, 93; groups 663, 665, 666
of which: Instruments and watches	Groups 861 and 864

Imports of eleven commodities into selected western European countries by area of origin
(Text table on page III-20 and Tables X-XX)

Country and Commodity Coverage

Data in quantities and current values were taken from **30.3**, **33.2 (iv)**, and national trade statistics.

In principle, commodities are defined in terms of the Standard International Trade Classification as specified below; however, figures taken directly from national statistics may have a slightly different coverage from those given in SITC sources.

Commodity		*SITC*
Wheat	Wheat and spelt (including meslin), unmilled	Group 041
Sugar	Sugar beet and cane sugar	Group 061
Coffee	Coffee not roasted, roasted	Group 071
Tobacco	Tobacco, unmanufactured	Group 121
Rubber	Crude rubber, including synthetic and reclaimed	Group 231
Timber	Wood in the round or roughly squared, wood shaped or simply worked	Groups 242 and 243
Wool	Sheep's and lamb's wool, greasy or back-washed, scoured, whether or not bleached or dyed	Items 262-01 and 02
Cotton	Cotton, including linters, waste, carded and combed	Group 263
Crude petroleum	Petroleum, crude and partly refined	Group 312
Refined petroleum	Petroleum products	Group 313
Copper	Copper and alloys, not refined and refined, unwrought	Items 682-01 [a]

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[a] Except for the United Kingdom, where data refer to group 682.

Figures refer to special imports, except for the United Kingdom (general imports). Quantities shown in the tables are taken directly from the sources and a conversion factor has been used only for crude petroleum imported by the United Kingdom (1000 litres = 0.85856 metric tons).

Areas of origin are those given in Table VI, except for Latin America (which has been split into dollar and non-dollar countries) and " other overseas countries " (from which Philippines and Liberia have been transferred to " other dollar area ").

Conversion into July 1955/June 1956 Prices

Typical prices used in the text table, page III-20, were computed on the basis of quantities and current values of total imports into the seven countries included in Tables X–XIV, XVI–XVIII, and XX.

1955/56 typical prices in dollars per ton

Wheat	78	Wool	1 437
Sugar	101	Cotton	711
Coffee	1 114	Crude petroleum	21.7
Tobacco	1 371	Copper	961
Rubber	749		

For timber and refined petroleum, where quantities are not available for all countries, special price indices have been used, as follows:

Timber : Indices obtained from aggregate current values and quantities of imports into France, western Germany, Italy, Belgium-Luxembourg and the Netherlands have been applied to current values of imports into the seven countries.

Refined petroleum : The indices obtained from aggregate current values and quantities of imports into the five countries for which quantities are given in Table XIX have been applied to current values of imports into the seven countries.

The unit-value indices thus obtained (1955/56=100) were :

	1953/54	*1954/55*
Timber	104	99
Refined petroleum	103	99

Purchasing power of exports of non-dollar overseas countries (Chart 6)

Purchasing Power of Total Exports

The current values of total exports have been taken from **30.1**, November 1956 (Special Table B). The corresponding purchasing power has been obtained by deflating these current values by a special price index of imports, obtained by an appropriate weighting of export unit-value indices of the United States (exports to all areas) and an index of export prices for western European exports to overseas countries, calculated in the manner described on p. 294 of the SURVEY for 1954. The weights take into account, of course, the differing relative importance of western Europe and of the United States in the total imports of the two groups of countries.

The classification of countries into two groups is as follows:

Countries exporting mainly agricultural products : Argentina, Brazil, Paraguay, Peru, Uruguay, Algeria, Tunisia, Morocco, Angola, Mozambique, Australia, New Zealand, Union of South Africa, Burma, Ceylon, India, Pakistan, Cyprus, Gold Coast, Jamaica, Kenya-Uganda, Malta, Gozo, Mauritius, Nigeria, Sierra Leone, Tanganyika, Sudan, Egypt, Israel, Lebanon, Syria.

Countries exporting mainly mineral products : Chile, Belgian Congo, Netherlands Antilles, Surinam, Federation of Rhodesia and Nyasaland, Aden, Bahrein, Iraq, Jordan, Kuwait, Libya, Qatar, Hong Kong, Federation of Malaya and Singapore, Trinidad and Tobago, Saudi Arabia, Iran, Taiwan, Cambodia, Laos, Viet-Nam, Indonesia, South Korea, Thailand.

Volume of Imports

Current values of imports have been taken from statistics of exports of western European countries and the United States and have been converted into 1953 prices by use of the price indices described above.

Gold and Foreign Exchange Reserves

The data have been taken from **31.1.** Affiliated overseas countries have been excluded.

Commodity prices in selected world markets (Chart 8)

All the series, with the exception of those given below, are computed by Mr. Richard Schulze, Bonn, and reproduced from his privately circulated memoranda:

Coal : U.S. Bituminous, screenings, f.o.r. car at mine, sales to industrial consumers.

Cotton : U.S. Middling, 15/16″, average spot price in 15 markets.

Fuel oil : U.S. distillate, Gulf Coast, No. 2, cargo lots, f.o.b. ship at Gulf.

Rubber : London, smoked sheets, spot.

Wool : Combing 58's, clean, delivered cost in London based on U.K. and Dominion auctions.

V. PLANS FOR FREER TRADE IN WESTERN EUROPE (Chapter IV, Tables 3, 4 and 7)

Exports of major trading areas and of western European countries in 1955 by commodity classes (Tables 3 and 4)

In general the sources used were **30.8**, **30.3** and **33.2 (iv)**. For Iceland, Spain and Switzerland, national trade statistics have been used.

The Free Trade Area (potential members) includes the following countries: the Common Market countries; the United Kingdom, Iceland and Ireland; three Scandinavian countries; Austria and Switzerland; three southern European countries.

Figures for " all other countries " were obtained from difference between world exports and exports to the trading areas listed.

The following major adjustments have been made:

From **29.1**, August 1956 (p. 45) it can be assumed that trade within the eastern trading region was about $7,500 million in 1955, and this amount has been added to total exports from the area as given in the sources. Total world exports were increased correspondingly. Exports from the sterling area have been increased so as to include $332 million of United Kingdom re-exports, of which $174 million relate to the Free Trade Area.

Total world exports, as well as exports by commodity classes, from (*a*) Finland, Spain, Yugoslavia, (*b*) eastern trading area, (*c*) sterling area and (*d*) French and Belgian affiliated overseas territories to groups of countries within the Free Trade Area have been taken as equal to the corresponding imports of the above groups of countries, adjusted to f.o.b. values.

The structure of world trade in 1955. Major preferential trading areas before and after the inception of a Free Trade Area for western Europe (Table 7)

Sources

30.8, **33.2 (iv)** and Tables 3 and 4. In cases where data from the export side were not available, corresponding figures taken from the import side were adjusted to a f.o.b. basis.

Composition of Areas

British Commonwealth : overseas sterling area as specified in the SURVEY for 1954 (pp. 296–7), United Kingdom, Ireland and Iceland.

French affiliated overseas territories : Algeria, Comoro Islands, French Cameroons, French Equatorial Africa, French Guiana, French India, French Oceania, French Somaliland, French Togoland, French West Africa, Guadeloupe, Madagascar, Martinique, New Caledonia, Réunion, St. Pierre and Miquelon. Morocco and Tunisia, being part of the French franc area, are also included in this group.

Belgian affiliated overseas territories : Belgian Congo and Ruanda-Urundi.

Eastern trading region and prospective Free Trade Area in Western Europe : as for Table 4.

Figures for the total of major preferential trading areas after the inception of the Free Trade Area have been obtained as the sum of all areas listed, due allowance being made for double counting.

VI. EUROPEAN TRANSPORT PROBLEMS AND POLICIES (Chapter V, Tables 1–8, 10–11, 15–18, and text tables on pages V–4, 25 and 27, and Chapter VI, Tables 1–2 and Chart 2)

Note on the Sources and Coverage of Railway Statistics (Tables (V) 6, 7, 10–11 and 17 and Table VI–1)

The data shown in respect of railway goods and passenger traffic relate to the national systems in the country concerned. In addition, data for private railways (other than urban systems or lines of a local character) have been included in some of the tables when the necessary statistical information was available, and when traffic by these private lines was of some quantitative significance. The tables and countries concerned are the following:

Chapter V

Tables 6, 11 and 17: Denmark, Italy, Sweden and Switzerland. Table 18: Greece.

Chapter VI

Table 1 : Austria, Denmark, western Germany, Greece, Italy, Sweden and Switzerland.

It should be pointed out that the share of the private lines in total traffic is generally much more important in respect of passenger than of goods traffic. The omission of the private systems in some of the tables is therefore believed hardly to affect the data shown for goods transport.

The sources used for private railways were :

Austria : **2.7**; *Denmark :* **6.6**; *western Germany :* **10.8**; *Greece :* **11.1** and **11.2**; *Italy :* **14.10**; *Sweden :* **22.7** and **22.9**; *Switzerland :* **23.5**.

In addition, the figures for gross fixed investment in Tables V–7 and V–10 also include private railways in the case of Denmark, western Germany, Greece, Portugal and Sweden.

Commodity composition of road transport (Table V–3)

The sources used were:

Bulgaria : **4.A**; *Denmark :* **6.1**, 16 November 1955; *France :* **8.2**, supplement April-June 1954 (all distances), **8.8** (medium and long distance), and **29.4**, 1955 (long distance); *western Germany :* **10.3**, February 1956; *Norway :* **29.4**, 1955.

Commodity composition of railway transport in 1954 (Table V–4)

The sources used were:

Austria : **2.7**; *Belgium :* **3.12**; *Bulgaria :* **4.A**; *Denmark :* **6.6**; *Finland :* **7.5**; *France :* **8.8**; *western Germany :* quarterly statistics in **10.3**; *Netherlands :* **16.12** ; *Poland :* **18.9**; *Sweden :* **22.7**, 1954; *Soviet Union :* **25.23**; *United Kingdom :* **26.5**; *Yugoslavia :* **27.6.**

Commodity composition of inland transport in France and western Germany in 1954 (Table V–5)

The sources used were:

France : **8.9** for rail and water transport and **8.8** for roads; *western Germany :* quarterly statistics of rail and water transport in **10.3** and the issue of February 1956 in particular for roads.

Pattern of inland transport and goods transport by road (Tables (V) 1, 2 and 16 and text table on page V–4)

Rail and water traffic : **34.2** and national statistics. Rail goods transport excludes service traffic. For further definition and coverage see the note to Table V–6.

Road transport : as pointed out in the note to Table V-1, statistics relating to road transport are crude estimates and should therefore be treated as indicating orders of magnitude only.

(a) *Goods*

1954 : for the countries shown in Table V–2 the figures are based on national estimates and extrapolation of results of sample surveys, the latter taken during a more or less representative week during the year. Where the national estimates or sample survey were for a year other than 1954, as in the case of Denmark, Finland, western Germany and the United Kingdom, the data have been adjusted in line with the changes in the lorry stock between the sample year and 1954. The estimates or sample survey results were taken from the following sources: *Czechoslovakia :* **5.7**, No. 1, 1956, and **5.1**, 7 December 1955; *Denmark :* **6.1**, 16 November 1955; *Finland :* **7.4**, October 1954; *France :* **8.8**; *eastern Germany :* **9.10**; *western Germany :* **10.3**, February 1956; *Hungary :* **12.5**; *Italy :* **29.A**; *Poland :* **18.8**; *Sweden :* **29.A**; *Soviet Union :* **25.23**; *United Kingdom :* K. F. Glover and D. N. Miller, “ The Outlines of the Road Goods Transport Industry ”, **26.6**, Part III, 1954.

Estimates for western European countries for which no such data exist and which are included in “ other western and southern Europe ” in Table V–1 were derived by assuming an average performance per lorry of 33,000 ton-km. per year—the average for the countries in Table V–2 for which surveys were made. For southern European countries it was assumed that the average was at least a fifth lower.

1930 : no firm basis is available for estimating the volume of road goods transport in 1930. However, many factors, such as the increase in the size of lorries and in the efficiency of their utilization, indicate that there has been a considerable rise in ton-km. per lorry since 1930. These considerations, together with national estimates for some countries which go back some years (for example, *France :* **8.6**; *Italy :* F. Armani, “ Gli Autotrasporti italiani nell’anno 1954 ”, **14.4**, March 1955; *Sweden :* **22.14**) suggest that volume carried per lorry in 1930 in western Europe was about one-third of the 1954 average. In the case of the United Kingdom a proportion of one-half was considered more reasonable.

(b) *Passengers*

In view of the approximate nature of the figures, the percentages showing the distribution of passenger traffic between the three means of conveyance have been rounded to the nearest 5. Purely urban traffic has been excluded as far as possible from the original data for railways. Allowance for the exclusion of other urban travel was made by assuming an average annual performance of 500 thousand passenger-km. per bus, 20 thousand passenger-km. per car and 7,000 passenger-km. per motor-cycle; these averages were applied to the total fleet of each type of vehicle. The rough estimates for 1930 were derived by assuming that the average performance was lower by about one-fifth for buses, by one-fourth for passenger cars and unchanged for motor-cycles.

Estimated utilization of capacity of lorries and railway wagons in 1954 (text table on page V–25)

The total of ton-km. is taken from the sources used for Table V–1. The estimates of the utilization of lorry capacity are based on national data on total capacity of the lorry stock for Italy and western Germany. On the basis of the available break-down of the lorry stock by capacity groups the average capacity of a lorry has been crudely estimated at 1.9 to 2.1 tons for France, 2.6 to 2.7 tons for the United Kingdom and 2.7 to 2.9 tons for Sweden.

Length of railway network and density of traffic in 1954 (Table V–11)

The sources used were:

Population and area : **30.1** and **30.9,** supplemented by national statistics.

Length of line and traffic : **34.2** and national statistics.

Estimated costs per ton-kilometre of goods transport by road (Table V–15)

Profits are not treated as a cost, except in the United Kingdom. The sources and methods used were as follows :

Denmark : **6.1**, 16 November 1955.

Western Germany : **10.13.**

Italy : Costs per ton-km. were taken directly from **14.4,** March 1955 (pp. 323-348) and are themselves derived from data on performance in vehicle-km. per year and average load per vehicle given in the source as follows :

Size of lorry	*Thousand vehicle-km. per year*	*Tons loaded per vehicle*
Below 2 tons	30	1.0
2 to 5 tons	40	2.3
Above 5 tons	50	4.7
With trailer (medium)	50	6.7
With trailer (heavy)	60	12.0

The same source also gave a break-down of costs per vehicle-km. for a large variety of types of lorry, which have been roughly re-grouped according to the size classification of the table.

Soviet Union : **25.24** (p. 129).

Sweden : Data given in **22.18** on fixed costs per vehicle per year and variable costs per vehicle-km. (separately for a lorry of 2.75 tons capacity and for a lorry of 8.5 tons capacity) have been combined with data in the same source on annual performance in vehicle-km. to arrive at a break-down of total costs per vehicle-km. (The performance for the smaller lorry is put at 24 thousand and 31 thousand km. in Stockholm and the provinces respectively and for the bigger lorry at 55 thousand in both cases). Costs per ton-km. have then been derived by means of coefficients of utilization of capacity (0.5 for the smaller lorry and 0.66 for the bigger one), based on **29.A.** The variable costs for a 5-km. haul were applied to the 2.75-ton capacity lorry and for a 150-km. haul to the 8.5-ton capacity lorry.

The cost data shown are unweighted averages for Stockholm and the provinces.

Taxation of road vehicles and expenditure on roads (text table on page V–27)

Taxation on petrol and gas and diesel oil has in general been calculated by applying to figures of fuel consumption for road transport—from **29.B**—rates of taxation on road motor fuel (from **29.A**), adjusted for changes in motor taxation during the period 1952 to 1954. For *Denmark* national tax figures were used, and for *Sweden* they were adjusted to conform to the definition used in **29.A**. For *Finland* the source was **34.3** (p. 36).

Revenue from *taxes on vehicles, purchase tax, transport taxes and customs duty on vehicles and spare parts* has in general been taken from national sources, supplemented in some cases by estimates. For *Finland*, however, the source was **34.3.** Customs duties and transport taxes have been roughly adjusted, so as to refer to road motor transport only.

For the estimate of tax revenue per vehicle, total taxation thus obtained has been very roughly adjusted so as to exclude revenue from motor cycles.

The data for expenditure on roads are from the same sources as for Table V–8.

Gross fixed investment in transport and communications (Tables (V) 7, 8, 10 and 18 and text table on p. V–27)

General

Except as indicated below, all or most of the data in the tables was supplied by national statistical offices. The figures for gross national product at market prices and total gross fixed investment for western European countries other than Finland and Yugoslavia were taken from **33.1**, September 1956, rather than from national sources, in order to obtain greater international comparability. Other sources used were :

Belgium : **3.8**, supplemented by **3.A.**

France : Investment in sectors other than road and rail transport is from **8.7 (i)**, supplemented by **8.A.**

Greece : **11.3,** supplemented by **11.B.**

United Kingdom : **26.10,** supplemented by **26.A.**

Data for *eastern European countries and the Soviet Union* were taken from **29.3**, tables 112 to 128.

The classification used for *transport equipment* is by type of asset, rather than by industry of use, so that the figures include purchases by non-transport enterprises, private non-profit-making institutions and the non-military sector of general government. For example, the figures for railways cover only railway rolling stock (including, as far as possible, purchases by private owners of rolling stock that is registered for use on the lines of the national system), while purchases of motor vehicles and ferries by railways are included respectively under road transport and other transport. Similarly, the figures for road goods vehicles cover not only purchases by enterprises engaged in road goods transport, but also purchases by other enterprises. In the case of passenger cars, purchases by households have been included, for reasons indicated in the text. Moreover, the method of allocating total purchases between those made on business and on private account varies from one country to another and the allocation is arbitrary in many, if not all, countries. International comparability of figures which purport to relate to acquisitions for business use only therefore cannot be assumed. The inclusion of passenger cars bought by households in the figures for investment in transport naturally involves a corresponding addition to national figures of total gross fixed investment.

The data for *gross fixed investment other than expenditure on transport equipment* cover enterprises in the transport and communications sector and the capital expenditure of the central government and local authorities on such facilities as roads, canals, harbours and aerodromes, and exclude capital expenditure by enterprises outside the transport and communications sector on transport facilities for their own use, such as garages and harbour facilities. A distinction between such investment and the other investment of industrial and commercial enterprises could not be made.

Investment by Sectors

Railways

The figures include private railways in nearly all cases where they are of importance, but exclude urban, suburban and interurban tramways and railways of a local character. The dividing line between railways and tramways is necessarily often somewhat arbitrary.

Road transport

In almost all cases the coverage of the figures is confined to total purchases of passenger cars, buses and motor coaches, and road goods vehicles, and the capital expenditure of the central government and local authorities on roads. Available data did not permit the inclusion of other items of capital formation, such as investment in buildings, garages, parking facilities and equipment other than transport equipment of enterprises engaged in road transport. Motor-cycles, scooters and bicycles with auxiliary engines have also been excluded. The figures for capital expenditure on roads (and also those for total expenditure, including maintenance, shown in Table V–8 and the text table on page V–27) generally exclude expenditure on private roads, which, however, is an insignificant item in most countries. All data shown in dollars in Table V–8 and the text table on page V–27 have been computed by applying official exchange rates to the figures in national currencies.

Sea-going ships

Fishing and whaling vessels have been excluded in nearly all cases.

Other transport and communications

The figures generally cover tramways, railways of a local character, inland water transport, maritime transport other than ships, air transport and communications. Owing to lack of the necessary data, the figures for inland water transport cover only capital expenditure on canals and navigational improvements to rivers and purchases of canal, river and lake boats. Similarly, separate data are not available in many cases on the investments, other than their purchases of ships, of enterprises engaged in maritime transport. The figures for communications exclude facilities for radio and television broadcasting.

Country notes

In addition to the above general observations, the following should also be noted:

Austria : The figures for railways exclude private railways. The capital (and also the current) expenditure of the local authorities on roads in 1950 and 1955 has been partly estimated. Investment in other transport and communications includes only communications and the investments in inland waterways of the federal government.

Belgium : The figures for railways cover the Société nationale de chemins de fer belges only; the investments of the Société nationale de chemins de fer vicinaux are included under other transport. In the absence of official data on the current expenditure by local authorities on roads, the figures for total expenditure in the text table on page V–27 have been partly estimated.

Denmark : The figures for air transport relate to aerodromes only.

Finland : The figures for enterprises engaged in air transport cover purchases of aircraft only.

France : Current expenditure for the maintenance of roads has been partly estimated.

Western Germany : Calendar year figures for capital expenditure on roads for 1950 to 1952 and for current expenditure for 1950 to 1955 have been estimated on the basis of official figures for fiscal years beginning 1 April.

Greece : The figures for passenger cars for 1950 to 1952 do not include purchases by households which, however, were very small in those years.

Ireland : The figures for sea-going ships include canal and river boats. The figures for other transport and communications exclude tramways, aerodromes and investments of air transport enterprises other than purchases of aircraft.

Italy : The figures for railways cover state railways only; the relatively small investments of private railways are included under other transport. The figures for current expenditure for the maintenance of roads are based on private estimates. The figures for sea-going ships include canal and river boats and aircraft which, however, only account for a small proportion of the total.

Netherlands : The figures for railway rolling stock include trams and those for other railway investments include capital expenditure (other than purchases of transport equipment) of tramways and of enterprises engaged in providing all types of bus and motor coach services. Other railway investments in 1954 have been assumed to be the same as in 1955.

Norway : The figures for railways cover state railways only; the very small investments of private railways are included under other transport. The figures for state railways and for tramways include expenditure on current repairs and maintenance of buildings and those for harbours, aerodromes and communications include expenditure on current repairs and maintenance of both buildings and other works. The figures for enterprises engaged in air transport cover purchases of aircraft only.

Portugal : All figures relate to continental Portugal. Those for buses cover purchases by enterprises engaged in providing urban passenger transport services only, but such enterprises seem to own the bulk of the total fleet. Expenditure on roads relates to State roads only, which accounted for 58 per cent of the total network in 1954. The figures for total investment in transport and communications have been partly estimated, in the absence of official data for passenger cars and road goods vehicles.

Sweden : The figures for state railways for 1950 and 1951, for private railways for 1950 to 1952 and for both capital and current expenditure on roads for 1950 and 1951 were taken from **22.13**. The figures for sea-going ships include canal and river boats, and those for communications include facilities for radio and television broadcasting and investment in stocks.

Switzerland : The figures for passenger cars have been estimated. Capital and current expenditure on roads (taken from **23.6**) relates to the cost of construction work only; the break-down between capital and current expenditure has been estimated for years prior to 1954.

United Kingdom : The figures for road passenger transport cover all types of fixed investment, but those for road goods transport cover purchases of road goods vehicles only.

Yugoslavia : The coverage of the figures for motor vehicles is limited to those bought by public enterprises, but purchases by private enterprises and households account for only a small proportion of the total.

Long-term trends of industrial production and volume of goods transport (Chart VI–2)

Industrial Production and Mining

Western European countries and total : **33.9**; *Soviet Union :* **25.23**; *United States :* data for 1889-90 in **28.4** have been linked to the series in **33.9**. The 1964 estimates for *Italy* are based on information in **14.14**.

Volume of Railway and Total Transport

Western Europe : The volume indices used for Table 1 of Chapter V have been used; *France :* **8.6**, second half 1955 (p. 241); *western Germany :* **34.2** and the volume indices used for Table 1 of Chapter V. *Italy :* **14.12**. Estimates for 1964 are based on **14.12, 14.13** and **14.14**; *Sweden :* **22.14** and **22.6**; *United Kingdom :* **26.9**, 1938 and 1954 ; *Soviet Union :* **25.23**; *United States :* **28.3** and **28.4**.

Rail transport of fuel and consumption of energy in 1954 (Table (VI) 2)

Sources

Rail transport : The figures in the first three columns of the table are taken from Tables (V) 2 and 11 or the sources used for those tables.

Energy : The following sources, supplemented in some cases by national statistics, were used for western European countries: **29.5, 29.6, 29.7** and other data supplied directly by governments. In addition, **28.5** was used for peat, **33.1** for inland consumption of motor spirit, gas and diesel oil and fuel oil, **33.9** for inland consumption of kerosene and liquid fuels loaded as bunkers, **33.14** for inland consumption of liquid fuels by sectors, and **35.1** for fuelwood. The sources used for Poland were **18.9, 29.6, 29.7, 35.1** and information supplied to the secretariat, and those used for the Soviet Union were **25.13**, No. 1, 1956 (pp. 17-32), **25.23, 25.A** and **29.6.**

Conversion into Hard-coal Equivalent

The conversion factors, based on relative calorific values, used to convert other sources of energy into hard-coal equivalent are the same as those given in **29.3**, page C-5, with the following revisions and additions:

Energy source and unit (Ton, except as otherwise indicated)	*Hard-coal equivalent* (Tons)
Brown coal: Poland and the Soviet Union	0.4
Peat (dry basis)	0.4
Fuelwood (cubic metre of solid volume):	
Coniferous (softwood)	0.21
Broadleaved (hardwood)	0.29
Electricity (1,000 kWh)	0.4
Natural gas (1,000 cubic metres):	
Countries for which data expressed at an average calorific content of 10,000 kcal per cubic metre are available	1.43
France	1.37
Soviet Union	1.2
Shale: Soviet Union	0.16

The conversion factor for shale produced in the Soviet Union has been computed on the basis of the calorific value of the estimated amount of oil that can actually be recovered per ton of shale mined. The factor for electricity (both hydro and thermal) has been adjusted upwards from the level corresponding to its calorific value to take account of the fact that the average efficiency of utilization of electricity is much higher than that of solid and liquid fuels.

Coal Consumption by Branches

The figures cover hard coal, brown coal and processed solid fuels produced from those sources. For most countries they represent deliveries to consumers, and thus do not take account of changes in consumer stocks. However, in the United Kingdom, they are known to represent actual consumption. The figures for thermal electricity relate to public supply plants only; coal consumed by other establishments to generate electricity for their own use is included under the appropriate sectors. The data for households include consumption in small-scale industry, agriculture, commerce and other service industries, except for the United Kingdom, where they relate to households only. The definition of " small-scale industry " is not uniform between countries.

Coal as a Share of Energy Consumption

Total energy consumption : The figures represent the share of hard coal and brown coal (including net imports of processed solid fuels produced from those sources) in the total consumption of all primary sources of energy. The method of computation is the same as that described in **29.3** (pp. C-4 and C-5), with the following changes and additions:

Peat and fuelwood have been added, so that virtually all sources of energy are covered. All data for hydro-electricity have been taken from **29.6**, and natural gas has been included not only for Italy, but also for all other producing countries. The figures for liquid fuels have been revised to include bunkers in order to make them comparable with the figures for coal in this respect. The United Kingdom data for motor spirit now include aviation spirit, and so conform to those for other countries.

Consumption by sectors : The figures for each sector have necessarily been computed on the basis of the quantity of each source of energy, whether primary or secondary, actually consumed by the given sector. Consequently, coal consumption by sectors includes hard coal and brown coal consumed as such, plus solid fuels produced from these sources, but excludes purchased manufactured gas and, in the case of industry other than steel and households, thermal electricity purchased from public supply plants that has been produced from coal. Purchased manufactured gas and all purchased electricity are, of course, included in total energy consumption.

Industry other than steel : The figures for coal include deliveries for the generation of electricity. As far as possible, therefore, the data for electricity included in total consumption of energy relate to purchased electricity only. In the case of Belgium, however, separate data were not available for self-produced and purchased electricity, and the figures for coal were therefore adjusted to exclude coal used by industry for electricity generation. The figures for Denmark, Finland, Netherlands, Norway and Sweden include the steel industry, for which separate data were not available. The data for Denmark, France, Netherlands and Norway refer to 1955.

Thermal electricity : The data relate to public supply plants only. The figure for Italy is for 1953.

Households : As for consumption by branches, small-scale industry, agriculture, commerce and other service industries are generally included under households. The figures for Denmark, France, Netherlands and Norway refer to 1955.

VII. CHANGES IN THE LEVEL AND STRUCTURE OF OUTPUT IN WESTERN EUROPEAN COUNTRIES (Chapter VII, Tables 1–17 and Chart 1)

Gross domestic product in current and constant prices and the volume of output by sectors (Tables 1, 3–11, and 15–17)

General

Most countries publish series for gross domestic product at factor cost (or, as indicated in Table 1, another measure of national output) both at current and at constant prices, and the price indices implied in the two series (re-based on 1950) are presented for selected years in Tables 15 and 16. Sector outputs at constant prices have been re-based on 1950 and total output has been obtained by adding together the sector outputs. However, the data are still expressed in terms of price weights of the original year, and only the base has been changed. (The year to which weights refer is shown in Table 17.) Where data in constant prices were not available for pre-war it was sometimes possible to apply volume indices to output of a post-war year. These volume indices may be weighted by prices of another year (for example, in Belgium), and are therefore not completely comparable with the post-war data.

Whereas the product of the main components of the commodity sector can in general be estimated on the basis of fairly adequate statistics, the same does not apply to the greater part of the service sectors, where methods of estimating volume indices or of deflating series in current prices are liable to introduce fairly wide margins of error into the series thus derived in constant prices. On the problems and methods involved in deflating national accounts data, see **33.10**, **30.4**, No. 9, and **30.6**.

To the extent that the original data permitted, the classification by sector used in Chapter VII corresponds to that recommended in **30.6**, p. 43 *et seq.*, which is essentially the same as the United Nations International Standard Classification of All Economic Activities. (See also **30.5**, p. 40.) Thus, except as otherwise indicated in the succeeding notes, or in notes to the tables, the coverage of the sectors is as follows:

Commodity output

Agriculture : Includes fishing, hunting and forestry.

Mining and quarrying : Includes all the extractive industries.

Manufacturing : Generally includes handicrafts.

Electricity, gas and water : Both production and distribution. Electricity generated in other sectors by firms producing for their own use or for sale (mainly collieries and steel plants) should be included here and excluded from the corresponding industrial sector. This does not seem to be the case, however, in France, western Germany and Luxembourg, while the practice followed in other countries is not always clear.

Construction : Covers all construction activity, whether on private or public account and excludes the output of building materials (included in manufacturing or in quarrying).

Service output

Transport and communications : In principle, this sector covers all forms of transport, including shipping, storage and warehousing, although it is not always known how far national statistics conform to this ideal. In general, road transport undertaken directly by enterprises that, by reason of their principal output, are classified in other sectors, is mainly or wholly treated as the output of those sectors, thus unduly reducing the absolute and relative size of the transport and communications sector. The value of services provided by personal cars to their owners constitutes an item of consumer expenditure and is not part of the output of the transport sector. In practice, however, the distinction between the use of passenger cars for business and private purposes is necessarily arbitrary.

Trade : Includes both wholesale and retail trade.

Other services : No further break-down of this group of miscellaneous activities is presented in the tables, owing to the often unsatisfactory basis of the series and their inadequate international comparability. The main sectors included here are banking and insurance (unless included under trade), domestic services, ownership of dwellings, education and health services, professions, personal services, and public administration and defence.

Sources and methods

In most cases the data are taken from national accounts. The sources used, and estimates or adjustments made, were as follows:

Austria : **2.A.** According to **2.5**, the return of Soviet-controlled enterprises to Austrian management in 1955 adds about 1 per cent in that year to the total product and to manufacturing output at constant prices.

Belgium : 1948 to 1954 : **3.7**; *1936–38 :* The figures have for most sectors been estimated by applying volume indices obtained from the following sources to the post-war data in 1950 prices in **3.7**:

Agriculture : **33.11**.

Mining and quarrying ; Electricity, gas and water : **3.2**, March 1955. Coke has been excluded from mining and quarrying and water is not included in the sector electricity, gas and water.

Manufacturing : The indices in **3.2**, March 1955, were used. For metal-using industries and chemicals, for which indices are not given in that source, recourse was had to private estimates (L. Duquesne de la Vinelles, " Essai de reconstitution d'un indice de la production des industries chimiques et de la transformation des métaux pour la période 1913–1951 " in **3.6**, August 1956.) The indices in **3.2** are based on 1936–38, while those for chemicals and metal-using are based respectively on 1937–38 and 1937, thus tending to over-estimate output in 1936–38 relative to the post-war years.

Construction : Output has been estimated from the trend of employment in the sector, as given by **3.10** and **3.9**.

Transport and Communications : The index for rail and water transport given in **3.2**, March 1955 has been supplemented by separate indices for air and road transport and an index for communications from **3.A.** These four indices have been weighted by the estimated value added.

Trade : Output has been measured by the combination of an index of real wages (including employers' contributions)—used as a measure of consumption and so indirectly of turnover in wholesale and retail trade—and the index of manufacturing, described above, used as a measure of output of services of the trade sector not directly provided to consumers. The source for real wages is L. Dupriez, " Les rémunérations en Belgique de 1936 à 1952 ", in **3.6**, August 1952.

Other services : It has been assumed that output increased at the same rate as the average for manufacturing, electricity and gas, transport and communications, and trade.

The resulting value added by sector in 1936–38 is as follows:

Estimated Gross Domestic Product at Factor Cost in Belgium in 1936–38 at 1950 Prices

Billions of francs

Agriculture		24.5	
Mining and extractive industries		19.6	
Manufacturing		92.4	
Metal-making	7.1		
Metal-using	15.8 [a]		
Textiles	18.9		
Chemicals [b]	7.3 [c]		
Food manufacturing	20.4		
Building materials	7.5		
Miscellaneous	15.4		
Electricity and gas		4.4	
Construction		12.0	
Total commodity output			152.9
Transport and communications		17.2	
Wholesale and retail trade		36.0	
Other services		87.0	
Total service output			140.2
Gross domestic product			293.1

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[a] 1937. [b] Including coke and rayon. [c] 1937–38.

Denmark : **6.5**. The figures for recent years in Table 1 are from **6.1, 22 January 1957.**

Finland : **7.5** and **7.6**. The output of mining and quarrying and of electricity, gas and water are estimates. Their percentage share in 1938, 1949 and 1955 in the net output (gross value of output less raw materials) of industry (excluding construction), taken from **7.5**, has been applied to the total net value of production of the combined three sectors in constant prices as given in the national accounts. The estimated totals in constant prices thus obtained do not therefore fully take into account changes in relative prices.

Output for 1938 in 1948 prices was obtained by applying to the 1938 figures in constant prices the implied price index in the published data for 1938 and 1948 at 1938 prices.

France

General

Data in current prices were directly available for 1938, 1950 and 1952, while for 1953 and 1954 price indices have been applied to data in 1952 prices.

Data in 1950 prices for all years have been obtained by applying volume indices described below to 1952 values in current prices and converted into 1950 prices by means of the implied price indices given by 1950 data in current and in 1952 prices.

Output at Current Prices

1938 : Net domestic product and depreciation : Revised estimates from **8.A** on the basis of the study of MM. Dumontier, Froment and Gavanier, " La comptabilité nationale de la France en 1938 ", **8.3 (i)**, March–April 1947.

1950 : Net domestic product : **8.A** on the basis of **8.11** (revised to conform with the 1952 data).

Depreciation : **8.7 (i)**. The total has been allocated by sectors in the same proportions as in 1952.

1952 : Net domestic product and depreciation : **8.7 (ii)**, pp. 224–228. Bakeries have been transferred from trade to food manufacturing industries and rent from land transferred from personal rent to agriculture.

1953 and *1954 : Net domestic product and depreciation :* The price indices applied to 1952 values were either wholesale price indices (for coal, building materials, electricity) or unit value indices derived from table Va of **8.7 (i)**. In view of the minor changes observed in the prices of capital goods during the period 1952-54, the depreciation figures at 1952 prices (see below) were adopted.

Output at 1952 Prices

(a) *Net domestic product in 1938, 1950, 1953 and 1954*

The following series of volume indices based on 1952 = 100 have been applied to the 1952 data in current prices:

Agriculture : Indices of production taken from the annual enquiry into farm output and expenses published in the December issue of **8.3**.

Mining and quarrying : Three components of the revised index of industrial production have been weighted together. (Source: **8.1**, 21 July 1956.)

Manufacturing : 15 component series of the revised index of industrial production have been combined.

Electricity, gas, water : The two component series of the revised index of industrial production have been weighted together.

Construction : 1938 to 1949 : The component of the index of industrial production. *1949 to 1954 :* The volume index of gross domestic product in **8.7 (i)**.

Transport and communications : Various volume indices for railways and urban transport, road transport, sea and inland water transport, air transport, and communications have been estimated on the basis of available indicators, and have been weighted together.

Trade and other services : 1938 to 1949 : Indices derived from value added at constant prices given in **8.12**. *1949 to 1954 :* Indices of private consumption (excluding services) at 1952 prices, given in **8.7(i)**, have been used as indicators of the volume of trade, and volume indices of the consumption of services from the same source have been used for the output of services.

Banking and insurance : Roughly estimated from available information.

Ownership of dwellings : The volume indices have been derived assuming 1938 output to be the same as 1951, and an annual increase from 1950 of one per cent.

Public administration : Volume indices have been estimated on the basis of the number of civil servants as published in **8.1**, 8 September 1951, **8.2**, Supplement to April–June 1953, and **8.13**.

(b) *Depreciation*

1938 : Estimates of **8.A**, obtained by applying appropriate price indices to the depreciation figures at current prices.

1950 : For public administration, dwellings and total net domestic product depreciation has been taken directly from **8.7 (i)**. For the other sectors, it has been obtained by applying the volume indices described above to the 1952 depreciation figures.

1953 and *1954 :* Total depreciation for both years as given in **8.7 (i)** differs very little from the figure for 1952 (10 billion francs more in 1953 and 30 billion more in 1954). These slight differences have been allocated more or less arbitrarily between the sectors and the results obtained used indifferently for depreciation at current or at 1952 prices.

Western Germany: **10.8**, 1955 and **10.3**, April 1956. Mining and quarrying, and electricity and gas were estimated on the basis of production and price indices and the share of these industries in industrial output in 1936 given in **10.4 (ii)**, March 1952 and **10.3**, April 1956.

Greece : **11.3**. The gross domestic product in 1938 at 1950 prices has been estimated from indices of output for agriculture and industry taken from **33.8** (p. 272). It has been assumed that the movement of the index for construction between 1938 and post-war has been parallel to that of industrial production (manufacturing, mining and quarrying, and electricity, gas and water). It is further assumed that the output of services moved in the same way as total commodity output.

Ireland : **13.2** for net domestic product by sectors. The index of gross domestic product in Table 1 is from **33.12**, Vol. 1 (p. 244).

Italy : **14.A**.

Luxembourg : **15.A** and **15.2 (ii)**.

Netherlands : **16.A** for domestic product by sectors. The index of gross domestic product in Table 1 is from **33.3** (p. 173) and **33.12**, Vol. I (p. 244).

Norway : **17.4**, supplemented by **17.A** for more recent years.

Portugal : **19.A.** Original data in 1954 prices have been used throughout.

Spain : Estimates of P. Hamberg, " Informe preliminar sobre la renta interior de España " in **21.1**, May–August 1955. The index of net national product in Table 1 is from **21.3** (p. 28) and **21.2**, 1955 and 1956.

Sweden : **22.17.** The index of gross national product in market prices, shown in Table 1, is from the same source (p. 25) and **22.13**, which provided a link between national product in 1953 and 1938/39.

Switzerland : The index shown in Table 1 of net national product at market prices (excluding direct taxes and deflated by a cost-of-living index) is taken from **30.4**, No. 9.

Turkey : **24.2**, August 1956.

United Kingdom : **26.10** for post-war years. The figures for 1937 were obtained by applying to the 1948 figures the volume indices given in **26.7**, December 1952. These volume indices, which are calculated with 1948 weights, show an increase of 7 per cent in gross domestic product between 1937 and 1948. According to the same source (p. viii), a rough adjustment to pre-war weights would bring the increase to 11 per cent.

Index numbers of gross domestic product at constant prices (Chart 1)

The sources for output are the same as those used for Table 1, while population data (for the rectangles to the right of the country curves) are from **30.1** and (for some pre-war figures) **34.1**.

Gross domestic product at factor cost in 1954 in pre-war dollars was obtained by applying the volume indices shown in Table 1 to the pre-war figure of gross domestic product and converting into dollars by means of the pre-war rate of exchange. In the case of Austria and Portugal, for which no pre-war gross domestic product is available, the 1954 product was converted into dollars at the current rate of exchange and then expressed in 1938 dollars by means of an index of domestic prices in the United States.

The use of official rates of exchange unavoidably distorts the comparison between countries of the level of gross domestic product, and whereas the ranking of countries according to the size of their total product is probably not wide of the mark, the figures for output per head contain a much wider margin of error. They constitute only a very rough grouping of countries, and too much should not be read into inter-country comparisons.

More suitable rates of conversion based on purchasing power parity are proposed in **33.7**, but have so far been calculated for only four countries and relate not to pre-war but to 1950. Nor are the adjusted 1938 official exchange rates in **29.2** (p. 231) appropriate for the present purpose, as they take into account only prices of industrial goods (i.e., commodity output as defined above less agriculture and construction), whereas the data used in the chart and throughout Chapter VII refer to total output. As can be seen from Tables 6 and 7, the output of industrial goods ranges from 30 to 50 per cent of total output in most countries and in at least one instance is under 15 per cent.

Since the data are expressed in terms of pre-war prices, the relative position of the various countries and, even more, the relative levels of output per head are naturally different from those that would be obtained from a comparison of net national product per head in post-war prices, such as has recently been made by the United Nations in **30.7** for the years 1952 to 1954.

Employment and unemployment (Tables 2 and 9–13)

Employment

General

The data refer to the working population as given by national censuses, sometimes completed by extrapolation. Unemployed persons are in principle excluded and armed forces included.

The main difficulties inherent in the presentation and use of census data are discussed in Section 4 of Chapter VII. In particular, the differences in the definition and the treatment of unpaid female family helpers in the various countries, and even sometimes in successive censuses in the same country, make their systematic inclusion or exclusion impossible. Moreover, in a few countries there is no means of excluding them. It seemed, therefore, desirable to present in Tables 10, 11 and 13 two sets of results, derived from employment data including and excluding unpaid female family helpers.

In Table 9 a few countries are indicated for which no data on the working population are available or where the data have no clearly defined meaning or do not cover the whole period. In these cases changes in the total population had sometimes to be used, although it is known that movements of the total population, of the active population and of the working population are not necessarily parallel. In some cases indices, generally for the end of the period, have been used which are based on the trend of employment of wage and salary earners only.

Sources and methods

Austria : **2.1** of February 1955 and 1956, **2.6** and **2.8.**

Belgium : **3.10** and **3.9.** Employment in agriculture in 1937 was obtained by interpolation between figures for 1929 in **3.11** and for 1947 in **3.10.** The change in total employment between 1937 and 1947 shown in Table 9 is assumed to be the same as for the average of the following sectors: agriculture, mining and quarrying, manufacturing, electricity, gas and water, construction, transport and communications, retail and wholesale trade, banking, insurance and real estate and hotels and restaurants.

Denmark : Census results in **6.7** for pre-war and **6.2,** 1953 for 1950.

Finland : **7.5,** 1950 and 1955. Female family helpers in 1940 are assumed to have the same relation to total employment as in 1950.

France : **8.10** for pre-war and results of the 5 per cent sample for 1954, published in **8.1,** 28 May 1955. The 1936 census figures have been reclassified according to the 1954 classification with the help of **8.A.**

Western Germany : **10.8,** 1955. Employment in mid-1936 (for comparison with the output data) was obtained by interpolation between the census results for 1933 and 1939. Employment in 1955 has been estimated on the basis of changes in the number of wage and salary earners.

Greece : The 1951 census results are from **11.A.**

Ireland : **13.4** and **13.3.**

Italy : **14.8,** 1955 and **14.A.**

Luxembourg : **15.3** and **15.1,** January–June 1950.

Netherlands : The distribution of manpower in post-war years in terms of man-years is given in **16.6,** first quarter 1955. The link with pre-war in Table 9 is derived from **16.1,** April 1953 (p. 251).

Norway : Figures refer to full-time equivalent employment. The sources used were **17.4,** supplemented by **17.A,** and **17.3** of December 1954 and December 1955.

Portugal : **19.1,** 1951 and 1954. Family helpers in agriculture in 1950 are taken from **19.2.**

Spain : **21.4.**

Sweden : **22.19** and **22.21.** The number of female agricultural family helpers in 1940 has been reduced as proposed in **22.11,** p. 189.

Switzerland : **23.4,** 1949 and 1954.

Turkey : 1938 data are interpolations between the census results for 1935 and 1940 in **24.5 (i).** The census data for 1950 in **24.3,** 1953, have been supplemented for further detail on manufacturing by information in **24.2,** December 1955, and adjusted for agriculture by reference to data on the 1950 agricultural census in **24.5 (ii),** so as to exclude persons under 14 years of age. 1954 and 1955 (the latter being provisional results of the 1955 census) are from **25.A.**

United Kingdom : **26.9,** 1955 and **26.2.** Employment in 1937 was estimated from the results of the 1931 census adjusted by index numbers of employment of insured persons given in **26.3,** December 1938. It is thus implicitly assumed that the total occupied labour force moved in the same way as the total of insured occupied employees.

Unemployment (Table 2)

The coverage of unemployment statistics is not the same in all countries, and the percentages are therefore not internationally comparable. Nor, for reasons such as changes in legislation, are they always fully comparable within a country between the pre-war and post-war years. Except in Finland, France and Italy, where the ratio of registered unemployed to the total working or active population is shown, the data refer to insured workers. Partially unemployed persons are not always included. For a fuller discussion of unemployment statistics, see **32.1,** the source used for the table.

Output per head (Tables 9, 13 and 14)

The figures shown in Table 9 are derived from the indices of output and employment shown in the table.

The year to which the ratios in Table 13 refer is the same for each country as for Tables 10 and 11.

In Table 14 output per head is obtained by dividing indices of output for each sector by a corresponding index of employment. Where no sector break-down is shown the indices of total output per head are those used for Table 9. On the problems inherent in calculating and interpreting data on output per head see Section 4 of Chapter VII.

In general the employment data used in the tables are from the same sources as for Tables 9–12. Wherever possible, unpaid female family helpers are excluded from the employment data in Table 14.

VIII. FACTOR SHARES IN INCOME (Chapter VIII, Tables 1–8 and 11–25)

National income by distributive shares (Tables 1–4 and 14–25)

General

The most usual method of presenting the distribution of national income by factor shares in national accounts is to distinguish the final recipients of factor income, after transfer of dividends from corporations, and to differentiate between the income of households and the income of government. Government income includes both trading income from public enterprises and other services and income from property in the form of rent and interest and possibly dividends. Household income consists of wages and salaries, income from unincorporated enterprises (excluding income from the ownership of financial assets and all other non-entrepreneurial income) and the property income received by households (including the self-employed in their capacity as consumers) from other sectors (usually net of income paid to other sectors). This property income takes the form of rent, dividends and interest (and, in some countries, of corporate transfer payments to households and non-profit-making bodies). The remaining items to be accounted for are then direct taxes of corporations and their saving after tax. In addition, the income of households usually includes their receipts of interest on the public debt (which are not considered as factor income), and these appear, together with similar payments to enterprises, as a final deduction to be made from the total of factor payments to obtain national income. For a further discussion of different factor payments and their definition, see **30.5** and **33.7.**

For practical reasons some countries do not distinguish the final recipients of property income and take factor payments at their immediate point of origin. This procedure leads to the establishment of a total figure of corporate profits before distribution of dividends and similar totals for all rent and interest payments, wherever they originate and to whomever they are paid. Likewise, the income of government may not appear as a separate item—the trading income becomes part of total profits, and the property income part of rent and interest. The constituents of national income calculated in this way are free of public debt interest paid at home, since such interest is not treated as factor income generated in the economy, and so no deduction for this item is necessary. The countries publishing the distribution of national income in this way are Denmark (Table 16), for which however, a partial adjustment could be made, Finland (Table 17), for which alternative estimates on the standard basis were used for Table 8 (see below), Ireland (Table 19) and Switzerland (Table 24). (For the United Kingdom both series are available.) For these countries the data shown in Table 4, which in principle relate, so far as rent, dividends and interest are concerned, to the income of households, refer in fact to the total of factor income of each kind generated in the economy. This is generally indicated by the footnote " received by all sectors ". Moreover, as pointed out in the text, there is much variation between countries as to how much of the interest on the internal public debt is credited to corporations and enters their saving or whether it is allocated mainly or entirely to households. As regards rent and interest, it should be noted that some countries do, and others do not, impute to government the rent of government property and to households interest for services rendered free by banks.

Sources and methods

Austria : **2.5** for 1950 to 1955 and **2.2**, February 1956 for earlier years. The gross product of public administration and defence, taken to represent wages, is from **2.A.**

Belgium : 1938 : the annual article by Professor F. Baudhuin in **3.6**, February 1939 (p. 126) and May 1950 (p. 106), together with his revised estimates in **3.6**, No. 3, 1947. Professor Baudhuin provided the secretariat with a similarly revised estimate for the income of farmers. The figure for direct taxes on corporations is a rough estimate by the secretariat.

1948 to 1955 : **3.4**, September 1956. The Belgian estimates differ in three important respects from the OEEC Standardized System, but the source provides the information necessary to bring them into conformity. It should be noted that the estimates of corporate saving are open to perhaps greater uncertainty than the other income shares (cf. **3.4**, March 1956, p. 614).

Denmark : **6.5** (tables 18, 19 and 27), supplemented by **6.1**, 22 January 1957, for 1953 to 1955. Interest on the public debt has been allocated to households.

Finland : 1938 is from **7.6**, 1950, and all other years from **7.1**, October 1956. The income of farmers and the break-down of corporate profits (Tables 3 and 17) are from **7.A**, which is also the source for rougher and more detailed estimates of income shares by final receivers. These have been used in Table 4 to show corporate saving and taxes and dividends paid to households (and also in Table 8, for which see below). (A summary account, for 1954 and 1955 only on the lines of the OEEC Standardized System appeared for the first time in **7.1**, October 1956.) The published figures for total rent and interest payments have been retained, however, for the sake of comparison with pre-war. All relevant figures include stock appreciation.

France : 1938 : **8.A.**

1949 to 1955 : **8.7**, supplemented by **8.A** for revised 1955 data and for the break-down in relevant years of stock appreciation between companies and other enterprises. **8.A** also provided, in addition to direct taxes paid by farmers, estimated employers' contributions etc. to be added to the published data for wages of the public sector and in agriculture.

Two major adjustments have been made to the original figures (the first affecting 1938 also) :

(i) The product of households derived from the cultivation of food and other produce in gardens and allotments, etc., has been eliminated from national income on the grounds that it is usually excluded in other countries.

(ii) In the French accounts three types of transfer income are recognized as adding to the product of unincorporated and corporate enterprises—" subventions d'équilibre ", " subventions d'équipement " and " dommages de guerre ". " Subventions d'équilibre ", which are received only by corporate enterprises, consist of subsidies which are granted by the government to state enterprises to balance their accounts. They are nevertheless not treated as straight subsidies to producers (" subventions d'exploitation "), and so do not add to the contribution of these enterprises to the national product at factor cost. In the French system they appear, therefore, as transfer income in the appropriation account of enterprises. Since it is considered preferable, and in greater conformity with international standards, to regard them as similar to the " subventions d'exploitation ", the national income, the income of corporations, and their balance of saving (Table 18) have been increased by the amount of these subsidies.

The " subventions d'équipement " and " dommages de guerre " are treated in the French accounts as current transfers to corporate or unincorporated enterprises, but are not considered as contributing to corporate saving (undistributed profits) for purposes of the national income account. No further adjustment is therefore required for Table 18 or Table 4, but, as explained below, these transfers have been excluded from corporate income in Table 8.

Western Germany : **10.3**, September 1956, and **10.8**, for wages and rent (Tables 1 and 4); **10.6**, July 1956, for the saving of enterprises.

Ireland : **13.2**, especially the issue for 1955. For years prior to 1951 the change in livestock was added to agricultural output and national income; the relevant figures are given in notes to the appendix tables of the source. In accordance with international standards, emigrants' remittances, included in the national income in the Irish accounts, have been excluded (Table 1). Stock appreciation has been eliminated by assuming for the total figure given that two-thirds was due to companies. It has further been assumed that stock appreciation in agriculture is negligible.

Italy : (Table 1): The wage bill for 1938 is taken from **14.3. 14.7** gave the take-home pay of the employed labour force for 1954, whence the wage bill was obtained by deducting family allowances paid by employers and adding employers' and employees' contributions to social security. National income for both years is from **14.8**, 1955, the figures given for intermediate services of the government having been added for improved international comparability. Since the wage data and national income are taken from different sources, a range has been shown to indicate the probable margin of error.

Luxembourg : 1937 : **15.2 (i)**; *1949 to 1954 :* **15.A**, supplemented by **15.2 (ii)** for 1952 to 1955.

Netherlands : **16.A**, supplemented by **16.6**, second quarter 1956, for 1948. The data from **16.A** correspond more closely to the OEEC Standardized System than do those published in **16.6**. In particular, they include an imputation for the rent of government buildings, they allocate the income of insurance funds between government (social insurance) and households (life insurance), and exclude pensions received from abroad, which are treated as the income of non-residents. Wages in the public administration sector (including education) and the rent of dwellings are taken from table 11 of the published source.

Norway : 1938 and *1948 :* **17.4**; *1949 to 1955 :* **17.A**. The Norwegian concept of " faktorinntekt " corresponds neither to domestic nor to national product, but has been brought nearer to net national product by the exclusion of net investment income paid to abroad. Further, on the basis of information in **33.5**, " faktorinntekt " has been diminished by the approximate amount of imputed bank interest paid to enterprises, constituting about 70 per cent of the total imputation of bank interest.

Sweden : **23.A.** Owing to weaknesses in the basic data from which they are derived, the totals of national product derived from the income side cannot be reconciled with the more reliable totals derived from the expenditure side. The difference between the two sets of totals is broken down into a " regular " and an " irregular " residual (cf. **33.6**). The irregular part of the residual is allocated to corporate saving, while the regular residual—that part of the total residual which is assumed to move in proportion to the income and saving of households—is credited to households. However, it is not possible to allocate the regular residual between the income of unincorporated enterprises and the income from property and entrepreneurship of households, both of which items are therefore underestimated. In consequence, the percentages shown in the table add to a sum less than one hundred by the amount of the regular residual. (It has been assumed that the estimate of income from employment is more reliable and does not need to be credited with part of the residual.)

Switzerland : **23.4** and **23.1**, October 1956. For divergences between the Swiss accounts and the standardized system, with special regard to interest, dividends and the surpluses of public enterprises, see **33.4**.

United Kingdom : The basic data were taken from **26.10** (tables 8, 14, 29 and 32, supplemented by tables 37 and 40 for interest on the public debt). Stock appreciation has been deducted from the various items by reference to table 40 of the same source (and table 33 of **26.14** for 1938). For the conversion of the gross figures to a net basis, see p. 31 of this Appendix.

Wages and corporate profits as a share of national income (Tables 2 and 6)

In principle, non-trading income, such as dividends from abroad, rent from other sectors, and interest on the public debt, is excluded from profits. The sources used are the same as for Tables 1, 3 and 4, and the following items were taken to represent profits:

Denmark : The sum of direct taxes on corporations, their undistributed profits and dividends paid to households.

Finland: Corporate profits, a total which includes those surpluses of government enterprises which are not treated as subsidies or indirect taxes.

France: The net trading surplus of corporations (" revenu net d'exploitation ") plus " subventions d'équilibre " (for the addition of which see the notes to Tables 1, 3 and 4). The figures include a certain amount of interest on the public debt.

Ireland: Public and private companies' domestic profits.

Switzerland: The sum of direct taxes on corporations, their dividends paid to other sectors and undistributed profits. Public enterprises and co-operatives have been excluded.

United Kingdom: Gross trading profits of companies and public corporations less their estimated capital consumption. **26.10** gave the total capital consumption of these two sectors, from which has been deducted the estimated depreciation relating to gross rent received from property let to other sectors (see p. 31 of this Appendix), since the income from this source forms part of the non-trading income of corporations and not of their operating surplus.

The share of labour income in the economy as a whole, the private sector and the business sector (Table 5)

Except for the Netherlands, the sources used were the same as for Tables 1, 3 and 4.

The private sector

The figures for public administration and defence, shown in Tables 14–25 were deducted, but as mentioned in the text, the sector has varying coverage from one country to another, particularly with respect to education and public health. (In the particular case of western Germany, the figures represent the net output of the government sector, including services provided to the occupation authorities.)

The business sector

The deduction for rent concerns dwellings only in Denmark, and the total of rent and interest payments in Finland. In addition to agriculture and domestic services, but not forestry and fishing where separately given, the following other sectors were deducted in order to obtain wages and total product in the private sector:
Netherlands: (source: **16.8**): religion; *Norway:* education and religion; *United Kingdom:* public health and education services and private non-profit-making bodies.

Distribution of total corporate net income in six countries (Table 8)

General

In addition to their trading profits (i.e., their contribution to the net national product at factor cost less wages, rent and interest paid) enterprises may also receive some non-trading income. Most of such income goes to financial institutions, the trading income of which is small or even negative, and consists of income from investments made outside the enterprise sector (particularly interest on the national debt), interest received from households by banks, and mortgage interest received by building societies. In addition, there may be such items as rent paid by households or the government to property companies that let land or buildings.

If, as is the normal practice, this transfer income is added to the trading income of enterprises to obtain their total income, and hence their balance of saving, the national income account will not add up correctly unless corresponding reductions are made to the income of other sectors or a global deduction is made at the end. As regards the income received by enterprises from households it is customary to show the property income of households net of these payments. (International organizations recommend showing a gross figure, with a deduction at the end for interest on consumer debt.) Rental and similar property income received by enterprises from the government can likewise be deducted from government property income and a similar solution could be adopted for payment of interest on the public debt. To deduct public debt interest in this way, however, would result normally in a large negative figure for the income of government, and it is preferable (and recommended by international organizations) to present it as a general deduction to be made so that the constituent items of income add up to national income.

The degree to which such transfer incomes from households and the government constitute an important addition to the trading profits of enterprises depends largely on institutional factors—the volume of state indebtedness and its distribution between enterprises (mainly corporate financial institutions) and other sectors, the extent to which dwelling accommodation is let to households by corporations or purchased on mortgage, etc. In the United Kingdom, for example, such transfers add 15 to 20 per cent to the gross domestic profits of companies and perhaps 25 per cent to their net profits (i.e., net of depreciation). Some of this income, however, is received from public corporations and in a consolidated account for companies and public corporations the amount involved would be smaller. (The relative amount, however, might be larger, in view of the small net domestic product of public corporations to be added.) The percentage would be reduced, too, if expressed in relation to total trading profits rather than to domestic profits.

In France, public debt interest adds 10 to 15 per cent (in 1952),[1] but mortgage interest and interest paid to banks by households is negligible. (The treatment of certain other items of enterprise transfer income in the French accounts has been discussed in the preceding notes in this section.) As pointed out in Section 2 of Chapter VIII, public debt interest also contributes much to the income of corporate enterprises in Belgium. The importance of non-trading income in other countries may well be less, but existing national accounts data are inadequate for positive confirmation.

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[1] However, in the French accounts this interest is included in trading profits, and not in non-trading additions to income.

Sources and Methods

The total income for which the distribution is shown in Table 8 includes all such non-trading income. Where total corporate income is not an independently given figure for which a consistent break-down of taxes, dividends and profits is available, it can only be obtained as the sum of these three items, and will depend on the definition or coverage of dividends and saving. For example, the dividends may refer, as in the case of Belgium, Denmark and Finland, to the total receipts of dividends by households, some of which may not originate in domestic enterprises, but abroad, and will exclude dividends paid abroad. It should be noted that the figure for saving (even free of stock appreciation) will not correspond to the actual allocations to reserves by corporations, particularly if the deduction for depreciation is not the same as that made for purposes of company accounts or if all public debt interest in the national accounts is allocated to households (though saving will normally include additions to tax reserves).

Total income has been taken as equal to total corporate profits in Denmark and Switzerland (see the notes to Tables 2 and 6). For Belgium it has likewise been taken as equal to the sum of corporate saving, direct taxes and dividends paid to households. For Finland, France and the United Kingdom it was derived as follows:

Finland : **7.A** provided a break-down of income by final recipient, distinguishing the saving of corporations, their direct taxes, and dividends received by households. The sum of these three items has been taken as total corporate income, and excludes the surpluses of public enterprises, which in Table 17 are included in corporate profits. The estimates of dividends are subject to revision, and in general the break-down of property income for 1948 to 1953 between households and other sectors contains a wider margin of error than do the estimates of income before transfer of profits in **7.1**, October 1956 (notwithstanding that corporate profits in that source are a residual item).

France : Net trading profits (" revenu net d'exploitation "), plus " subventions d'équilibre ", plus dividends received by corporations. As explained in the notes to Tables 1, 3 and 4, other transfer income of enterprises is treated as on capital account.

United Kingdom : Gross trading profits of resident companies, plus profits earned abroad (including the balance-of-payments adjustment, which appears on the other side as a constituent of saving), plus non-trading income. From this total must be deducted taxes and remittances paid abroad (assumed to be mainly remittances of profit) and payments of interest (included in gross profits), together with companies' capital consumption (for which see below). The residual after payments of dividends and taxes constitutes company saving.

For all countries the sources are those used for Tables 1, 2 and 4.

Note on the method of obtaining net factor income in the United Kingdom for tables in Chapter VIII

(Tables 1–4, 6–8 and 25)

An attempt has been made to establish data on a net basis by using the figures given for depreciation in table 55 of **26.10.** The estimates thus made of the net values of the various items are no more than an approximation and do contain unavoidable statistical errors that cannot be corrected in the present state of knowledge. The items particularly subject to some error are the net profit and net saving of corporations and the net income of government, but though this may affect the order of magnitude, the year-to-year changes in the share of corporate saving in national income, which is the main interest of this study, should be more reliable. It can be seen from Table 3 that the share of income from self-employment is scarcely different on a net basis than it is on a gross; the correspondence is equally close for rent, interest and dividends paid to households. The following is a comparison for corporate saving and the income of government (per cent of national income or gross national product, including provision for stock appreciation):

Corporate saving	*1938*	*1948*	*1949*	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*
Gross	6.0	10.6	8.7	11.9	13.3	7.6	8.6	10.7	10.3
Net	2.6	7.2	4.9	8.4	9.7	2.9	4.0	6.3	5.7
Income of Government									
Gross	..	2.7	2.8	3.0	2.9	2.6	2.9	3.2	3.4
Net	..	0.8	1.1	1.3	1.1	0.6	1.0	1.5	1.6

The original data on depreciation distinguish persons, companies, public corporations and central and local government (of which trading and non-trading), further separating dwellings from other assets. On this basis it is possible to arrive (for Tables 3, 4 and 25) at the net income of the self-employed by assuming that they are responsible for the entire non-dwelling depreciation of persons, and at the net income of households from property (rent, dividends and interest) by deducting from their gross income the figures given for depreciation of dwellings owned by persons (assuming that households receive rent only from dwellings). Similarly, company saving and total company income (Table 8) and corporate savings (Tables 4 and 25) can be obtained by deducting the depreciation of companies and all corporations respectively from the gross figures. To determine net trading profits for Tables 2 and 6 and total net rent in Table 4 it is further necessary to remove from the figures for the capital consumption of companies, public corporations and other public enterprises that part which relates to buildings that are rented,[1] with a view to deducting it from total non-dwelling rent. The net trading profits of these three sectors can then be obtained by deducting the remaining capital consumption from their gross profits. The method adopted was to take net business

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[1] The imputed rent of owner-occupied trading premises is counted as trading profit.

(i.e., non-dwelling) rent at half the gross figure (based on an analogy with dwellings) and to distribute this total among companies, public corporations and other public enterprises, roughly in proportion to their total depreciation (in the ratio 5:3:1). (In fact, only half of net business rent was thus distributed, for it appears from **26.13** (p. 337) that roughly half of non-dwelling rent is paid by trading concerns.) In addition, the total of gross non-dwelling rent in 1938 was roughly estimated at one-third of the depreciation of dwellings.[1]

The resulting figures for corporate profits and rent were as follows (percentages of gross or net domestic product, including provision for stock appreciation):

Corporate profits	*1938*	*1948*	*1949*	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*
Gross	14.3	18.1	18.0	19.4	20.5	17.7	17.9	18.5	18.8
Net	11.5	15.6	15.3	16.7	17.8	14.3	14.4	15.2	15.3
Rent									
Gross	9.6	4.0	3.8	4.1	3.8	4.0	4.3	4.5	4.3
Net	8.3	1.5	1.4	1.8	1.4	1.4	1.8	2.2	2.0

The above assumptions are necessarily rough. For example, the non-dwelling appreciation of persons ought not to be entirely allocated to the self-employed, since a small amount of personal rent is received from trading concerns or public authorities. Errors of this kind and of over- or under-estimation of the depreciation of non-residential buildings will affect more particularly the distribution of net income and saving between the sectors, but it is thought they will have a lesser impact on the year-to-year variations for which the figures have been primarily estimated. It should be added, however, that there is a further possibility of net non-dwelling rent being under-estimated without corresponding over-estimation in another sector, to the extent that national income is itself on the low side because certain gross rent items are under-valued (as explained in **26.10** and **26.13**), in so far as the rent involved (mainly imputed rent of one kind and another of central and local government) is valued in relation to the original cost of the asset while depreciation is provided for at replacement cost.

Share of wages and salaries in net domestic product by industrial sectors (Tables 11 and 12)

Denmark : **6.5** (tables 19 and 53–54).

Finland : **7.1**, October 1956, **7.5** and **7.6**.

France : 1938 : Indices of activity by sector, derived from the quarterly inquiry of the Ministry of Labour as published in **8.2**, have been applied to wages and salaries in 1952 (source: **8.7 (i)**). The figures thus obtained of the wage bill in 1938 (assuming the 1952 wage structure) have then been reduced proportionately so that the total wage bill corresponds to the figure used for Table 1.

1950 : **8.11.**

1952 : **8.7 (ii)**, pp. 224–228.

1953 and *1954 :* Indices of activity by sector, from **8.2**, have been applied to 1952 wages and salaries and adjusted for changes in wage rates since 1952 from the same source. However, for agriculture, public administration, and domestic services, figures have been taken directly from **8.7 (i)** and **(ii).**

Western Germany : Wages and salaries have been taken from **10.7**, No. 4, 1954 and **10.1**, 9 November 1956. Net output by sector has been taken from **10.8**, 1956 and **10.3**, September 1956.

Ireland : **13.2**, 1955.

Italy : As indicated in footnote 30 on page VIII-22, the share of wages in the product of industry is estimated for 1948 to 1955 on the basis of the wage bill given in the 1951 census of industry (**14.15**), adjusted for changes in wage rates and employment. 1938 is from **14.16** (p. 195), adjusted to exclude transport.

Netherlands : Revisions to 1938 data in **16.8** are from **16.A.** Other data are from **16.8** (table 13).

Norway : 1938 and *1948 :* **17.4** (tables 19 and 20); *1949 to 1955 :* **17.A.**

United Kingdom : **26.10.**

Analysis of changes in the share of wages and salaries in net domestic product (Table 13)

All sectors

The sources for the wage share in the net (or gross) output of the various sectors are the same as for Tables 11 and 12. The original data permitted the following number of sectors to be distinguished: *Denmark*: 15; *Finland*: 8; *France*: 11; *western Germany*: 8; *Ireland*: 5; *Netherlands*: 13; *Norway*: 16; *United Kingdom*: 14.

Manufacturing only

Denmark : The computation has been based on the share of wages in the gross output of 20 separate industry groups as given by the annual statistics of industry (**6.3**).

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[1] This approximation for business rent in 1938 may influence the comparability of total pre-war net rent with the post-war figures, but there can be little doubt that the decline in the importance of rent in the economy is much greater in terms of net rent than it is of gross.

Netherlands: 11 industry groups have been distinguished.

Norway: No published data on the wage share for separate industries within the manufacturing sector for a pre-war year being available, recourse has been had to a similar estimate in a national study—O. Aukrust, " Den funksjonelle inntektsfordeling i Norge belyst ved nasjonalregnskapsdata ", **17.5**, December 1956.

About 13 groups of industries have been distinguished within the manufacturing sector, but the computation was made on the basis of the average 1935–39 wage fraction within separate industries (and not the 1950 wage fraction).

United Kingdom: The gross output of each of twelve industries has been taken as equal to the sum of wages, salaries and gross profits. The items excluded—employers' contributions, income from self-employment and the surpluses of public corporations—account for less than 10 per cent of the gross domestic product of manufacturing.

IX. DISTRIBUTION OF PERSONAL INCOME BY SIZE
(Chapter IX, Tables 1–3, 5 and 8–12 and Charts 1–3)

Income by size range (Tables 1, 3 and 8–12, and Charts 1 and 3)

Denmark

Sources: **6.4** and **6.8**.

The Income Concept

Assessed income in the Danish sense is net of losses, insurance premiums up to a maximum, an allowance for wage and salary earners (but apparently not for self-employed persons) and net of the total of direct taxes paid to the central and local governments during the year. This is the concept considered in all the distributions shown, other than the over-all distributions of income before tax (Table 3 and Chart 1), where direct state taxes on personal income paid during the year have been added (Source: **6.8**). The ranges of income refer in all the distributions shown, including those for income before tax, to assessed income as defined above.

The Recipient Concept

The earnings of a married couple are considered as one income. All persons over 18 years (other than jointly assessed married women) are recorded, irrespective of whether they have an income. Persons under 18 years are included only if they have a steady income from work or are not living with their parents or other persons on whom they are economically dependent.

Coverage

Since the data include all adults (other than jointly assessed married women) who are not income receivers, they are more comprehensive than for other countries. It can be seen from Table 1 that the coverage in respect of the number of incomes is less satisfactory for 1939 than for 1952. According to **6.8**, 47,000 domestic servants and 50,000 agricultural workers should be added to the 1939 tax returns to obtain comparability with later years and this would increase the coverage from 88 to 93 per cent. No adjustment could be made to correct the distributions for this discrepancy.

Total income derived from fiscal data compares much less favourably with aggregate personal income derived from national accounts than in the other countries studied, and this is only partly due to the fact that taxes on income other than those paid to the central government are excluded from the before-tax distribution.

Western Germany

Sources:

The data for pre-war Germany in 1936 and western Germany in 1950 are based on records of persons subject to the wage and salary tax and to income tax. The latter account for 15 per cent of the total number of recipients included in the over-all distribution in 1950. The sources used were: " Versuch eines Vergleichs der Einkommensschichtung in der Bundesrepublik Deutschland 1950 und im Deutschen Reich 1936 ", **10.3**, October 1954 and " Zur Frage der Einkommensschichtung ", **10.3**, June 1954.

The Income Concept

The concept of income and the recipient unit used in these two sets of tax data differs substantially, and in spite of the adjustments made in the sources, the comparability is still not very satisfactory. Income according to the income tax returns is net of losses only and gross of tax allowances. Income reported by wage and salary earners includes tax allowances, costs of acquisition and employees' contribution to social insurance.

The Recipient Concept

In the data derived from the income tax returns, married couples' income is considered as one and dependent children's earnings from sources other than employment are included with that of the head of the family. In the data derived from wage and salary tax records, married women and children earning their own incomes are separately distinguished.

Coverage

The coverage is fairly complete in respect of the income from employment of wage and salary earners, whether employed or not, as the data have been appropriately adjusted in the sources. Coverage is less satisfactory for other recipients, particularly those with very low incomes. The distributions exclude all pure rentiers and generally persons whose income consists mainly of social transfers. To the extent to which such persons work, they are generally included in the distribution, but are attributed only their income from employment. The exact coverage of the 1936 data in respect of income recipients could not be determined. They are known to include 31 million recipient units [1] from which the majority of pure rentiers have been deducted in the source (**10.3**) and to which unemployed persons have been added.

The Netherlands

Sources : 1938 : **16.11** ; *1946 and 1950 :* **16.13** and **16.14.**

The Income Concept

Income reported includes income from all sources, net of losses, personal allowances (mainly income payments to others) and costs of acquisition. Capital gains are partly included, but abnormal additions to income, such as receipts through liquidation of business, do not affect the size distribution, the recipient being classified in the range of his " normal " income (though apparently attributed his actual income).

The Recipient Concept

Married couples, incomes are treated as one. Children's income from all sources was separately distinguished in pre-war statistics, while only the income from employment is separately distinguished in the post-war data. The comparability of the series should be little affected.

Coverage

The coverage of the pre-war series has been improved (on the basis of information from **16.A**) by the inclusion of persons who because of tax allowances deducted to obtain assessable income fell below the exemption limit. Other incomes below the exemption limit have been included on the basis of information given in **16.9**, which, however, covers only economically active persons. Since the adjusted pre-war series include all economically active persons it is certain that the coverage in respect of farmers, independent traders and other entrepreneurs with very low incomes is somewhat fuller in the pre-war than in the post-war distributions. Most of these incomes appear to have been fairly close to the exemption limit in 1938, however, and corresponding post-war incomes are probably included, since the exemption limit was not raised proportionately to the rise in money incomes.

The exact coverage of the post-war statistics is uncertain. Most wage and salary earners are presumably included, since their income, which is taxed at the source, is recorded down to very low levels.[2] To the extent to which they had received any income at all from employment during the year (and the majority did) unemployed persons are also covered, in both the pre-war and the post-war series. In the post-war statistics, other persons who work only part of the year (such as migrants) are classified according to the full time equivalent of their actual income but are attributed only their actual income. Incomes not subject to the wage and salary tax are less fully covered and those that fall below the tax exemption limit appear to be generally excluded from the post-war statistics.[3] These incomes, although they may be known to the tax authorities, are not carried over into the statistics from one year to the other if it can be assumed that they continue to remain below the exemption limit.

Incomes received mainly from pensions and other transfer payments are excluded in all years.

Distribution of Income after Tax

These distributions show income before tax earned during the year less direct taxes assessed on that income, and not taxes actually paid in that year. The ranges relate to income before tax. Pre-war data could not be used since taxes deducted relate to the basic central government tax on income only, which was only some 25 per cent of total income taxation.

Sweden

Sources : 1935 to 1948 : **22.16**; *1948 and 1954 :* unadjusted tax data in **22.8.**

The Income Concept

In the over-all distributions in the years 1935, 1945 and 1948 (Table 3 and Chart 1), from **22.16**, the concept is a very wide one, comprising the total of income from employment and other sources, including all transfer incomes. Income after tax in these years (Table 12 and Chart 3) is net of all direct taxes paid by persons to central and local government on income and property, and is from the same source. These are the only data that are comparable for pre-war and post-war. Later post-war data are available only in the annual tax returns (**22.8**), where the income concept used is narrower. It includes gross income from agricultural real estate, other real estate, trades and professions, wages, salaries and occasional earnings and income from capital, net of deficits on any of these sources. This concept is also the one underlying the partial distributions in Tables 7 to 11.

The Recipient Concept

In the over-all distributions (Tables 3 and 12 and Charts 1 and 3) the income recipient unit is the family in the narrow sense —i.e., husband, wife and dependent children. In the partial distributions (Tables 7 to 11), however, a married woman's income is recorded separately from that of her husband.

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[1] See " Die Einkommensschichtung im Deutschen Reich ", *Wirtschaft und Statistik*, September 1939 (p. 660).

[2] The post-war wage and salary tax has rates applying to earnings for as short a period as four hours.

[3] Ten per cent of the number of incomes recorded in the income tax statistics were below the tax exemption limit in post-war years; the proportion is somewhat smaller for incomes recorded exclusively in the wage and salary tax returns (9 per cent in 1946 and 6 per cent in 1950).

Coverage

The coverage is less complete, in respect both of recipients and of income, in the annual tax data than in **22.16**, which includes all income in kind, income below the tax exemption limit, and other incomes not covered by official statistics, while the tax data leave out of account recipients falling below the exemption limit applying to central government taxation of personal income. The tax records for years prior to 1951 treat a married couple's income as one, while since 1951 married women's earnings have been separately recorded. Comparable series (based on a joint classification) are, however, available for the over-all distribution in tax records for recent years. As is pointed out in the text, the effect that this change in the treatment of married women's earnings may have on the over-all distribution of income is not important, but certainly cannot be ignored in the case of distributions by industrial attachment and occupational status. The tax data could not therefore be used for the partial distribution. The only other suitable data for comparison of partial distributions are those which are published in the quinquennial census of population, of which the earliest post-war year is 1945. Married women's income in this source (**22.20 (i)**) is treated in the same way as in the post-1951 tax returns. The comparability in respect of industrial and occupational classification may, however, not be fully satisfactory. From the evidence in the source the series seem to compare reasonably, but it appears that non-active income recipients and recipients in manufacturing are relatively more numerous in the census data than in the tax records.

22.20 (i) does not give aggregate income for each interval, which has been derived for Table 8 by assuming that the mid-point of the interval corresponds to average income. Total aggregate income thus found has been adjusted to conform to total income given in **22.20 (ii)**.

United Kingdom

Sources : **26.10**, except for the total number of income recipients in 1938, which is from **26.16**.

The Income Concept

Income is net of costs of acquisition, national insurance contributions and some grants to persons from public authorities. All income in kind, except that of domestic servants, is also excluded.

The Recipient Concept

The combined income of married couples is considered as one income. Juveniles receiving separate incomes, even though partially dependent on their parents, are treated as separate units.

Coverage

The post-war data cover all incomes other than " inconsiderable " incomes, such as casual earnings of schoolchildren for delivering newspapers, small investment incomes and other incomes below £50. The 13.7 million incomes below £125 in 1938 may include, however, an insignificant number of " inconsiderable " incomes.

The taxes deducted for the distributions of income after tax are income tax and surtax payable by persons. With regard to income other than wages, salaries and dividends (which are not taxed at source) the distributions show income before tax earned during the year, less direct taxes assessed on that income and not taxes actually paid in the year.

Aggregate personal income (Tables 1 and 2, and Chart 2)

National accounts data have been used. Aggregate income in the *Netherlands* (source: **16.6**, second quarter 1956) was estimated for 1946 by assuming that the increase between 1946 and 1948 was as for national income. Aggregate personal income in *Sweden* in 1945 is from **22.16**, and for *Denmark* in 1938 from **6.A**. Where data in constant prices were not available for Table 2, the current price series have been deflated by the index implied in series at current and constant prices for private consumption.

Population aged 15 years and over (Table 1)

The data have been taken from statistical yearbooks. The number of married women is usually only available in census years, and their numbers in other years for the United Kingdom and the Netherlands have been roughly estimated.

Changes in the composition of populations (Table 5)

The data are taken from censuses of population, extrapolated by less complete annual figures in statistical yearbooks. Active population in *Great Britain* in 1938 has been estimated by assuming that the increase between 1931 (the census year) and 1938 was the same as for the dependent labour force. Active population in the *Netherlands* has been estimated from data on man-years in **16.1**, April 1953, and **16.6**, fourth quarter 1956, applied to the 1947 census. Numbers of married women in *western Germany* in 1939 are taken from **10.9**.

Percentage distribution of total income (Tables 3 and 12, and Charts 1 and 3)

General

The Lorenz Curve and its Application to the Basic Data

The parameters of the Lorenz curve, such as the inequality coefficient and the maximum equalization percentage, can either be read off from the graph or—more precisely but rather more laboriously—determined by algebraic formulae that have been developed by Gini and others. For the purposes of this study mathematical measurement was not considered necessary, and readings from curves drawn freehand have been made, with the aid of a planimeter when necessary. It follows that the greater the number of intervals given in the original distribution data, the smaller will be the possible error in the slope of the curve at any point as a result of connecting the various known points by hand.

In cases where the original data gave only the range of income and the number of recipients in each interval, aggregate income for each interval was obtained from a histogram, the frequency for each interval being multiplied by the income represented by the point mid-way between the two limits of the interval. Total income thus obtained was compared with the aggregate usually given in the original sources. The differences between the two totals were generally small, but the total error is of course an average of larger positive and negative errors for the separate intervals.

The Inequality Coefficient [1]

It should be noted that the reliability of the measures of inequality is a function of the number of intervals of the distribution. Fairly accurate estimates are possible when aggregate income for each interval is known and when there are at least some ten intervals that do not vary too greatly in size. Important errors are introduced if this latter condition is not met—for example, the pre-war distributions in the United Kingdom and the Netherlands, where the first interval comprises more than half of the total frequencies. If, in addition, aggregate income for each interval is not given, too few intervals will magnify the error.

For example, the inequality coefficient for Denmark in 1953 rises from .405 to .435 if the number of intervals is reduced from thirty to eight, because in the lower income ranges average income is higher than the income corresponding to the mid-point of the interval and conversely for the high income ranges. The assumption that average income is identical to the income represented by the mid-point of the interval therefore leads to some over-estimation of the degree of inequality, the more so the smaller the number of intervals. This over-estimation is of some importance in the coefficients shown for Sweden and Denmark, where the income of the interval is generally not known, and particularly in the partial distributions for the latter country, where furthermore the intervals known are fewer than in the case of the over-all distributions.

Inter-country comparisons of inequality coefficients should therefore be made with particular caution, and even inter-temporal or inter-sector comparisons within a country may be vitiated by considerations of the above nature. This applies with particular force to the pre-war and post-war distributions of the United Kingdom and the Netherlands.

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[1] Gini has shown that the index of inequality is connected to the mean difference. In a population of n individuals, the mean difference of their income equals the sum of the absolute values of the n (n−1), differences which can be found by taking the individuals two at a time in all possible combinations and then dividing by their number.

Algebraically the index of inequality is given by the formula:

$$R = \sum_{i=1}^{k} p_i\, q_i\, R_i + R_m$$

where k equals the number of intervals, p_i, q_i and R_i represent respectively the frequencies as percentages of the total, incomes as percentages of the total, and the inequality of distribution within the interval i. This latter can be determined as follows:

$$R_i = 2\left(1 + \frac{x_1}{\bar{x}}\right)\left(1 - \frac{(1 + 3a)^2}{15a}\right)$$

where x_1 and $\bar{x}$ represent respectively the lower limit and the average income of the interval, and a the proportion of the interval situated above average income. Let R_m represent the inequalities between the intervals, then

$$R_m = \sum_{i=2}^{k} P_{i-1}\, Q_i - \sum_{i=2}^{k} P_i\, Q_i - 1$$

where P_i and Q_i are the cumulated frequencies and incomes as far as the upper limit of the interval i.

Thus R_i becomes an adjustment made to R_m.

If one cuts the curve into two segments—for instance, the first 95 per cent and the upper 5 per cent—the total inequality can be given by the following formula:

$$R = (.95\, q_1\, R_1 + .05\, q_3\, R_2) + (.95 - q_1)$$

where q_1 and q_2 are the share of the total income attributed to 95 and 5 per cent respectively, and R_1 and R_2 are the inequalities within the lower 95 and the remaining 5 per cent.

Keeping R_1 and R_2 constant, one can measure the effect on the total inequality of income transfer between two periods from the 5 to the 95 per cent.

On the other hand, if q_1 and q_2 remain constant, one can measure the effect of the changes in the degree of inequalities within the 95 and 5 per cent respectively.

Maximum Equalization Percentages[1]

The slope of the tangent at a point on the Lorenz curve indicates the degree of inequality at this point. Where the tangent to the curve is 45 degrees marginal income equals average income and where it is less than 45 degrees marginal income is below average (and conversely where the tangent is more than 45 degrees). The share of income to be transferred from high to low income ranges in order to obtain equal distribution corresponds to the maximum vertical distance between the Lorenz curve and the diagonal representing equal distribution (i.e., the distance between the point with a 45-degree tangent and the diagonal). In spite of the gradually changing shape around the point of tangency at 45 degrees, that point can be determined in a sufficiently precise manner, since it is known to be within the interval comprising average income.

Sources

Distribution by decile groups was given for some years in the original sources for western Germany and Sweden, as follows:

Western Germany : 1936 and 1950: **10.3**, October 1954; *Sweden :* 1935, 1945 and 1948 : **22.16.**

All other distributions were obtained by interpolation of Lorenz curves constructed from data in the sources used for Table 1.

Coefficients of inequality and average income in partial distributions (Table 8)

The sources used are the same as for Table 1, with the exception of *Sweden* in 1945 (**22.20 (i)**) and the *Netherlands* in 1952 (**16.7**). Average income by branch of activity and occupational status is not available for *Sweden* in 1945 and it has been estimated by assuming that average income corresponds to the mid-point of the interval. The coefficients of inequality have been measured in the same way as for Table 3.

The coverage of the groups distinguished, in terms of the classification of the source data, is as follows:

Netherlands : 1946 and 1956 (classification of **16.14**, p. 7):

Agriculture (including fishing and hunting): groups 18 and 19.

Manufacturing: groups 1 to 3, 5 to 15, and 17.

Trade: group 20.

Liberal professions (including public services and miscellaneous services): group 24.

1952 (classification of **16.7**):

Salary earners: company directors and persons employed in public services only.

Wage earners: all other employed persons.

Self-employed: independent heads of enterprises and liberal professions.

Non-active persons: persons without an occupation and pensioners.

Denmark (classification of **6.4**):

Agriculture

Self-employed: farmers with large farms, farmers with medium-sized farms, smallholders, others in agriculture and forestry, gardeners and fishermen.

Wage and salary earners: permanent hired employees, farm and forest labourers, etc.

Manufacturing

Self-employed: factory owners, master craftsmen in the food, textile, metal and other industries (excluding building).

Wage and salary earners: directors, bakers, joiners, smiths and mechanics, other journeymen and unskilled workers, male workers not specified.

Trade

Self-employed: wholesalers, grocers and shopkeepers, dry goods dealers, others in commerce.

Wage and salary earners: shop personnel, etc.

Liberal professions : Physicians, lawyers and others in liberal professions.

Total self-employed : those included in the industrial classification above (including liberal professions) plus master craftsmen in building and construction, hotel owners and restaurant keepers, taxi and truck owners, etc., others and non-reported occupations.

Total salary earners : company directors, technical employees, shop personnel, other employees, administration and office personnel in public and private enterprises, employees of railway, mail and telegraph services, other public servants (clergymen, teachers, etc.).

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[1] The maximum equalization percentage is proportional to the mean deviation. One can thus connect by means of the Lorenz curve two measures of dispersion with different concepts—the mean difference and the mean deviation. These two measures generally give very similar results so that in the analysis one can pass from one to the other without serious error.

Total wage earners : those included in the industrial classification above (except directors and shop personnel), plus bricklayers, domestic servants, apprentices and students.

Total non-active persons : persons without occupation.

Sweden : The published grouping has been used without modification.

Percentage distribution of income recipients in each decile group according to the recipient's branch of activity and occupational status (Tables 9 and 10)

The income limits corresponding to decile groups of recipients for the total distribution were determined by reading off from graphs relating income levels to the percentage of recipients.

The numbers of recipients of different occupational status or industrial attachment falling within these limits have been found by reading back from similar graphs for the partial distributions, and have been expressed as percentages of all income recipients. Because of inevitable errors in reading from the graphs, the sum of the shares in the partial distributions does not come to exactly one hundred, and the shares have therefore been proportionately adjusted, in order to correct for this error, before being expressed as percentages of total income recipients.

Income transfers required to obtain equal distribution of income within each sector (Table 11)

The sources and coverage for the figures are the same as for Table 8.

It should be noted that the total of intra- and inter-sector transfers required to obtain equal distribution within sectors is not comparable with the maximum equalization percentage shown in Table 3 (and for Denmark, Table 12) for all sectors, owing to a certain amount of duplication. Thus, in the case of a high income sector part of the income which is simply transferred from high to low ranges to obtain equalization within the sector has to be removed altogether from the sector and is transferred to low income sectors in order to obtain equalization for all sectors taken together.

Income-tax structures before and after the war (Chart 2)

The tax rates shown for pre-war generally apply to income earned in 1938 or 1939 and for post-war to income earned in 1955 or 1956. Personal income per head has been obtained from the same sources as for Table 2.

The sources for tax rates were as follows:

Denmark : **6.B.** The rates apply to Copenhagen only, but other rates have moved roughly in conformity.

Western Germany : **10.10**, Teil 1, 10 February 1938, and **10.11,** Teil 1, 17 December 1954 (tax on earned income).

Netherlands: **16.15** and **16.10.**

Sweden : **22.15** and **22.10.** The data relate to " ortsgrupp " (cost-of-living area) III, and local taxes, amounting to 10 per cent of personal income before the war and 12 per cent after, were added to obtain income before tax.

LIST OF SOURCES QUOTED IN APPENDIX B

ALBANIA

1.1 *Zeri i Popullit.* Daily.
1.2 *Bashkimi.* Daily.
1.3 Agence télégraphique albanaise, Paris: *Albanie.* Twice a week.
1.4 *L'Albanie nouvelle,* Tirana. Monthly.
1.5 E. Hoxha: *Raporti i komitetit quëndror të Partisë së Punës të Shqipërisë në kongresin III të partisë,* 1956.
1.6 M. Shehu: *Raport mbi rezultatet e realizimit të planit të parë pesëvjeçar dhe direktivat e planit të dytë pesëvjeçar për zhvillimin ekonomik e kultural të R. P. të Shqipërisë në Kongresin III të partisë,* 1956.
1.7 V. V. Shvets: *Ekonomika narodnoi Respubliki Albanii,* Moscow, 1956.

AUSTRIA

2.1 *Monatsberichte des Österreichischen Institutes für Wirtschaftsforschung.*
2.2 *Statistische Übersichten zu den Monatsberichten des Österreichischen Institutes für Wirtschaftsforschung.*
2.3 *Mitteilungen des Direktoriums der Österreichischen Nationalbank.* Monthly.
2.4 Österreichisches Statistisches Zentralamt: *Statistische Nachrichten.* Monthly.
2.5 Österreichisches Statistisches Zentralamt und Österreichisches Institut für Wirtschaftsforschung: *Österreichs Volkseinkommen im Jahre 1955,* January 1957.
2.6 Österreichisches Statistisches Zentralamt: *Ergebnisse der Volkszählung vom 1. Juni 1951,* 1953:
  (i) Vol. 14—*Textband.*
  (ii) Vol. 13—*Tabellenband II (Berufsstatistischer Teil).*
2.7 Bundesministerium für Verkehr und verstaatlichte Betriebe: *Amtliche Eisenbahn-u. Strassenbahnstatistik der Republik Österreich.* Annual.
2.8 Österreichisches Institut für Wirtschaftsforschung: *Österreichs Beschäftigungsstruktur in den Jahren 1938, 1948, und 1950* (Beilage No. 13 of *2.1*), January 1951.

2.A Information supplied by the Österreichisches Institut für Wirtschaftsforschung.

BELGIUM

3.1 *Agence économique et financière.* Daily.
3.2 Institut de recherches économiques et sociales de l'Université de Louvain: *Service mensuel de conjoncture : Statistiques.*
3.3 Banque nationale de Belgique: *Bulletin d'information et de documentation.* Monthly.
3.4 Institut national de Statistique: *Bulletin de Statistique.* Monthly.
3.5 Ministère du Travail: *Revue du travail.* Monthly.
3.6 Université catholique de Louvain: *Bulletin de l'Institut de recherches économiques et sociales.* Eight times a year.
3.7 Institut de sociologie Solvay, Université libre de Bruxelles: *Economie belge et comptabilité nationale 1948–1954,* 1955.
3.8 Ministère des Affaires économiques: *Dixième et onzième rapports relatifs aux problèmes des investissements,* 1956.
3.9 Office central de Statistique: *Recensement économique et social 27 février 1937,* 1939–1943.
3.10 Institut national de Statistique: *Recensement général de la population, de l'industrie et du commerce au 31 décembre 1947,* 1949–1951.
3.11 Office central de Statistique: *Agriculture : Recensement général au 31 décembre 1929,* 1937.
3.12 Société nationale de chemins de fer belges: *Annuaire statistique 1954,* 1955.

3.A Information supplied by the Ministry of Economic Affairs.

BULGARIA

4.1 *Rabotnichesko Delo.* Daily.
4.2 State Planning Commission: *Planovo Stopanstvo.* Monthly.
4.3 *Izvestiia na narodnoto Sbranie* (Official Gazette) [Prior to 1951, *Drzhaven Vestnik*]. Irregular.

4.A Information supplied by the Statistical Office of Bulgaria.

CZECHOSLOVAKIA

5.1 *Rudé Právo.* Daily.
5.2 Chamber of Commerce: *Czechoslovak Economic Bulletin.* Monthly.
5.3 State Statistical Office: *Statistický Obzor.* Monthly.
5.4 Engineering institute: *Podniková organisace* (Organization of Enterprises). Monthly.
5.5 State Planning Office: *Plánované Hospodářství.* Ten times a year.

5.6 Central Committee of the Communist Party: *Nová mysl.* Monthly.
5.7 State Statistical Office: *Statistické Zprávy.* Quarterly.
5.8 Academy of Agricultural Science: *Sovětské zemědělství.* Every two months.
5.9 *Úřední List.* (Official Gazette). Irregular.
5.10 Central Committee of the Communist Party: *Deset let rozvoje národního hospodářství a kultury Československé republiky 1945–1955*, 1956.
5.11 Ministry of Foreign Trade: *Zahraniční obchod.* Monthly.
5.12 Academy of Agricultural Science: *Za socialistické zemědělství.* Twice a month.

DENMARK

6.1 Statistiske Departement: *Statistiske Efterretninger.* Frequent but irregular.
6.2 Statistical Department: *Statistical Yearbook.*
6.3 Statistiske Departement: *Industriel Produktionsstatistik.* Annual.
6.4 Statistiske Departement: *Indkomst- og formue-ansættelserne til Staten.* Annual.
6.5 Statistiske Departement: *Nationalindkomsten 1938 og 1947–54* (Statistiske Meddelelser 4/160/2), 1955.
6.6 Danske Statsbaner: *Årsberetning for tiden 1 April 1954 til 21 Marts 1955*, 1955.
6.7 Statistiske Departement: *Folketaellingen 1940.* Bind II — *Befolkningens fordeling efter erhverv*, 1949.
6.8 K. Bjerke: *Changes in the Danish National Income Distribution 1939–1952* (Paper read to the Fourth Conference of the International Association for Research in Income and Wealth, Hindsgavl, September 1955).

6.A Information supplied by the Statistiske Departement.
6.B Information supplied by the Skattedepartement.

FINLAND

7.1 Central Statistical Office: *Bulletin of Statistics.* Monthly.
7.2 Ministry of Finance: *Suhdannesarjat.* Monthly.
7.3 Ministry of Social Affairs: *Sosiaalinen Aikakauskirja.* Monthly.
7.4 *Bank of Finland Monthly Bulletin.*
7.5 Central Statistical Office: *Statistical Yearbook of Finland.*
7.6 Ministry of Finance: *Economic Survey.* Annual.

7.A Information supplied by the Central Statistical Office.

FRANCE

8.1 Institut national de la statistique et des études économiques: *Bulletin hebdomadaire de statistique.*
8.2 Institut national de la statistique et des études économiques: *Bulletin mensuel de statistique.*
8.3 Institut national de la statistique et des études économiques: *Etudes et Conjoncture.*
    (i) *Union française.* Monthly.
    (ii) *Economie mondiale.* Monthly.
    [Now published jointly in one volume.]
8.4 Ministère du travail: *Enquête trimestrielle sur l'activité économique et les conditions d'emploi de la main-d'œuvre* [Roneoed document].
8.5 Ministère du travail: *Situation du marché du travail et du chômage secouru.* Quarterly. [Roneoed document.]
8.6 Conseil économique: *Conjoncture économique.* Half-yearly.
8.7 Ministère des finances, des affaires économiques et du plan: *Rapport sur les comptes de la nation*, 1955.
    (i) *Vol. 1 : Rapport et comptes, 1949–1955.*
    (ii) *Vol. 2 : Les méthodes.*
8.8 Commission des comptes des transports de la nation: *Rapport sur les comptes des transports de la nation en 1954*, November 1955.
8.9 Ministère des travaux publics, des transports et du tourisme: *Statistiques des transports : Année 1954.*
8.10 Direction de la statistique générale: *Résultats statistiques du recensement général de la population effectué le 8 mars 1936.* Tome I, troisième partie — *Population active, établissements*, 1943.
8.11 Institut national de la statistique et des études économiques: *Note sur la répartition du produit intérieur net entre les branches économiques (Année 1950)*, 14 January 1954. [Roneoed document.]
8.12 P. Gavanier: *Le revenu national de la France. Production et disponibilités nationales en 1938 et de 1946 à 1949.* [Extract from *Statistiques et études financières, Supplément finances françaises*, No. 20], January 1953.
8.13 Institut national de la statistique et des études économiques: *Recensement des agents de l'état en 1952*, 1953.

8.A Information supplied by the Institut national de la statistique et des études économiques.

EASTERN GERMANY

9.1 *Neues Deutschland.* Daily.
9.2 *Die Wirtschaft.* Weekly.
9.3 *Der Aussenhandel.* Weekly.
9.4 Ministerium der Finanzen: *Deutsche Finanzwirtschaft.* Twice a month.

9.5 Staatliche Zentralverwaltung für Statistik [formerly Statistisches Zentralamt]: *Statistische Praxis.* Monthly.
9.6 Zentralkomitee der sozialistischen Einheitspartei Deutschlands: *Einheit.* Monthly.
9.7 *Wirtschaftswissenschaft,* Verlag die Wirtschaft. Every two months.
9.8 Regierungskanzlei: *Gesetzblatt der Deutschen Demokratischen Republik.* Irregular.
9.9 *Gesetz über den Fünfjahrplan* (Schriftenreihe der Deutschen Demokratischen Republik Nº 8), Deutscher Zentralverlag, 1952.
9.10 Staatliche Zentralverwaltung für Statistik: *Statistisches Jahrbuch der Deutschen Demokratischen Republik 1955,* Deutscher Zentralverlag, 1956.
9.11 Kammer der Technik: *Energietechnik,* VEB Verlag Technik. Monthly.

9.A Information supplied by the Statistical Office.

WESTERN GERMANY

10.1 Deutsches Institut für Wirtschaftsforschung, Berlin: *Wochenbericht.*
10.2 Statistisches Bundesamt, Wiesbaden: *Statistischer Wochendienst.*
10.3 Statistisches Bundesamt, Wiesbaden: *Wirtschaft und Statistik.* Monthly.
10.4 Statistisches Bundesamt, Wiesbaden: *Die Industrie der Bundesrepublik Deutschland.*
  (i) *Teil 1 : Beschäftigung und Umsatz, Brennstoff und Energieversorgung.* Monthly.
  (ii) *Teil 2 : Produktion ausgewählter Erzeugnisse, Produktionsindex.* Monthly.
  (iii) *Teil 3 : Die industrielle Produktion.* Quarterly.
10.5 Statistisches Bundesamt, Wiesbaden: *Der Aussenhandel der Bundesrepublik Deutschland. Teil 1 : Zusammenfassende Übersichten.* Monthly.
10.6 *Monthly Report of the Bank deutscher Länder,* Frankfurt.
10.7 Deutsches Institut für Wirtschaftsforschung, Berlin: *Vierteljahrshefte zur Wirtschaftsforschung,* Duncker and Humblot.
10.8 Statistisches Bundesamt, Wiesbaden: *Statistisches Jahrbuch für die Bundesrepublik Deutschland.*
10.9 Bundesministerium für Arbeit: *Die Frau im Erwerbsleben,* 1954.
10.10 Reichsministerium des Innern: *Reichsgesetzblatt.* Irregular.
10.11 Bundesminister der Justiz: *Bundesgesetzblatt.* Irregular.
10.12 B. Stumpf: *Jahrbuch des Eisenbahnwesens 1952,* Carl Röhrig-Verlag, Cologne and Stuttgart, 1952.
10.13 Statistisches Bundesamt, Wiesbaden: *Die Kostenstruktur in der gewerblichen Wirtschaft und in ausgewahlten freien Berufen.* (Statistik der Bundesrepublik Deutschland, Band 49 Heft 6 — *Verkehrsgewerbe*), October 1955.
10.14 Statistisches Bundesamt, Wiesbaden: *Das Einkommen der Einkommen- und Körperschaftssteuerpflichtigen und seine Besteuerung* (Statistik der Bundesrepublik Deutschland, Band 125), January 1956.

GREECE

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14.6 Ministero del Lavoro: *Statistiche del Lavoro*. Quarterly, with monthly supplements.

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15.1 Ministère des Affaires économiques: *Bulletin du Service d'Etudes et de documentation économique et de l'Office de la Statistique générale*. Quarterly.

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NETHERLANDS

16.1 *Maandschrift van het Centraal Bureau voor de Statistiek*.

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16.3 Centraal Bureau voor de Statistiek: *Maandstatistiek van de nijverheid*.

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18.7 Polish Economic Society: *Ekonomista*, State scientific publishing house. Quarterly.

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SPAIN

21.1 Instituto de Estudios Políticos: *Revista de Economia Política*. Every four months.

21.2 Banco Central: *Estudio Económico*. Annual.

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SWEDEN

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22.2 Kommerskollegium: *Kommersiella Meddelanden*. Monthly.

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UNION OF SOVIET SOCIALIST REPUBLICS

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25.3 *Trud.* Daily.
25.4 Ministry of Agriculture and Ministry of State Farms: *Selskoe Khozyaistvo.* Daily.
25.5 Central Committee of the Communist Party of the Soviet Union: *Kommunist* [formerly *Bolshevik.* Bi-monthly]. Eighteen times a year.
25.6 Ministry of Agriculture: *Sotsialisticheskoe Selskoe Khozyaistvo.* Monthly.
25.7 Ministry of Manufactured Consumer Goods: *Legkaya Promyshlennost.* Monthly.
25.8 Ministry of Foreign Trade: *Vneshnyaya Torgovlya.* Monthly.
25.9 Ministry of Domestic Trade: *Sovetskaya Torgovlya.* Monthly.
25.10 Ministry of Finance: *Finansy SSSR* [Formerly *Finansy i Kredit SSSR*]. Monthly.
25.11 State Bank: *Dengi i Kredit.* Monthly.
25.12 Central Statistical Administration: *Vestnik Statistiki.* Monthly.
25.13 Academy of Sciences, Institute of Economics: *Voprosy Ekonomiki.* Monthly.
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25.15 Ministry of the Maritime Fleet: *Morskoi Flot.* Monthly.
25.16 Ministry of the Food Industry: *Sakharnaya Promyshlennost.* Monthly.
25.17 Ministry of Fisheries: *Rybnoe Khozyaistvo.* Monthly.
25.18 State Planning Commission: *Planovoe Khozyaistvo.* Every two months.
25.19 Supreme Soviet of the USSR: *Stenografichesky otchet zasedanii Verkhovnogo Soveta SSSR.* Twice a year.
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26.2 Central Statistical Office: *Monthly Digest of Statistics.*
26.3 *Ministry of Labour Gazette.* Monthly.
26.4 Board of Trade: *Report on Overseas Trade.* Monthly.
26.5 British Transport Commission: *Transport Statistics.* Every four weeks.
26.6 *Journal of the Royal Statistical Society. Series* A *(General).* Quarterly.
26.7 London and Cambridge Economic Service: *London and Cambridge Economic Bulletin.* [Quarterly supplement to *The Times Review of Industry.*]
26.8 Treasury: *United Kingdom Balance of Payments.* Half-yearly.
26.9 Central Statistical Office: *Annual Abstract of Statistics.* [Formerly *Statistical Abstract for the United Kingdom.*] Annual.
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ECONOMIC COMMISSION FOR EUROPE, GENEVA

29.1 *Economic Bulletin for Europe.* Three times a year.
29.2 *Economic Survey of Europe in 1948*, 1949.
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29.4 *Annual Bulletin of Transport Statistics for Europe.*
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30.3 *Commodity Trade Statistics* (Statistical Papers, Series D). Quarterly.
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30.5 *A System of National Accounts and Supporting Tables* (Studies in Methods, Series F, No. 2), 1953.
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30.7 *Per Capita National Product of Fifty Countries 1952–54* (Statistical Papers, Series E, No. 4), 1957.
30.8 *Yearbook of International Trade Statistics 1955*, 1956.
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31.1 *International Financial Statistics.* Monthly.

INTERNATIONAL LABOUR ORGANISATION, GENEVA

32.1 *Year Book of Labour Statistics 1955*, 1955.

ORGANIZATION FOR EUROPEAN ECONOMIC CO-OPERATION, PARIS

33.1 *OEEC Statistical Bulletins—General Statistics.* Every two months.
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33.3 *National Accounts Studies—Netherlands*, 1951.
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